

RISHI KUMAR MISHRA

Before the
BEGINNING

and after the
END

BEYOND THE UNIVERSE OF PHYSICS

REDISCOVERING ANCIENT INSIGHTS

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RISHI KUMAR MISHRA

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*para ambayai namah
shri ganadhipataye namah
acharya charan kamalebhyo namah*

*ajnan timirandhasya jnanjan shalakaya
chakshu runmeeliam yen tasmai shri guruvei namah*

Blinded as I was in the deep darkness of ignorance,
He who opened my eyes with the
fine collyrium stick of knowledge —
To him, my teacher, I bow in deep reverence.

As a respectful acknowledgement of the debt of
a humble student to his great teacher,
this work is dedicated to

PANDIT MOTILAL SHASTRI

*Guru Purnima
(28 July 1999)*

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ACKNOWLEDGMENTS

A Personal Note

Having dedicated this book to my Guru, the late Pandit Motilal Shastri, I could have done without these lines. But Maharaj Ji, as I used to call him, was more than a teacher. I could not have written these lines but for him. Not because I learned the subjects covered in this book from him, but because his encounter with me was my real rebirth. He found me, took me to Manvashram where he lived, and recast me in a new mould.

A toy made of clay is first crushed into formless matter. It is dried, water is added to it, and the mound of clay is then reshaped. He did this to the inside of me, leaving the clay mould to bake in the fire of the struggle of day-to-day existence. The matter of which the toy was made was not new; even the new form was indistinguishable from the old. But in reality it was something reborn, in every sense of the word. Some day I shall narrate that experience, although I know he would consider it a wastage of whatever energy is now left with me. Hence, this brief reference to him here. This work would not have been possible if he had not done to me what he did. In fact, the person who writes these lines would not have been here but for him. So, how does a creation acknowledge the contribution of the creator? By writing these lines I am saying to him: "I am doing what you asked of me when you decided to bid goodbye to all of us in this world."

Near the Ramniwas Bagh, the historic public garden in Jaipur, there is a house with a big and impressive garden. In a small room within that compound lived Swami Brahmananda, a *Sanyasi*, renunciate and sage, who spent almost his entire lifetime there. Maharaj Ji took me to him, after which I began to visit him frequently. It is not possible to describe him because there was nothing unusual about him. He looked like an average Indian *Sanyasi*, apparently did nothing, never left the compound where his room was located, did not give profound discourses, did not ask for anything, lived on alms (*Bhiksha*). For a few hours of the day he would come out of his room and sit on the veranda. Some people, though not many, came; for blessings or advice, and often for medicines for their ailments. To the last group he would give some herbs and often suggested that they consult a doctor. He was always smiling, radiating peace. Often I just sat there, watching him talking to those who came.

As I spent time in his presence, I began to notice the pearls of insights that he would scatter around. It was for the visitor to pick them up if (s)he had the ability and the inclination. I do not remember asking him many questions. Frequently, when he was replying to a question or responding to a problem posed by a visitor, he would look at me and make some remarks. I knew these were for my benefit. Slowly I began to view the history of our country and the travails of our civilisation in an entirely different way. Maharaj Ji would, later, link Swami's pithy remarks with the wisdom of the seer-scientists.

Swami Brahmananda Ji was a Rishi of our times. He left this earth quietly, unknown to the scholars and philosophers. I

hope to be able to dedicate a companion volume on the cosmic matrix and enduring happiness to him as an acknowledgement of the debt that I, and Maharaj Ji, owe to this great man, who gave me an opportunity to glimpse what the seer-scientists or Rishis of olden days were like.

If this were a “religious” work, I would have said that everything related to this volume was divinely ordained. But it is a study of Vijnana. I would, therefore, like to express my thoughts differently. From the time that the seed was planted by Maharaj Ji, everything about this work — in fact, the course of my entire life — has been taken care of by *Jagadamba*, the supraphysical force which regulates all that goes on in this universe. Nothing else explains my meeting with Vyvyan Cayley and the nature of the partnership that has developed between us. I ran into her as she was floating between London, Melbourne, Delhi and Dharamsala. She has edited this book not merely as a professional — although she is an outstanding professional — but as one who has participated in bringing this work to light with deep commitment and involvement.

Dr. Prodosh Aich left India in his teens, lived in Germany for over three decades, learned and began to teach sociology. He came under the spell of Marxism, moved a long distance from his country (not merely in the geographical sense), and had no inkling of the Indian tradition of the *Vedas* and related branches of knowledge. He met me in Jaipur in the Sixties, after which we lost contact with each other. It is not easy to explain why such a person should, after a decade, visit India, interact with me about this work, read some draft chapters,

insist that I come and stay with him in Germany to complete my writing, and use the whip of uncomfortable reminders when I slowed down and allowed my attention to be distracted. Thus, innumerable episodes about my life and especially about this work reveal the hand of Jagadamba, who has been steering me as a mother holds a child by the hand and guides him across a crowded road.

For me, most stunning of all has been the experience of my meeting with Renuka, my wife, and the tumultuous journey we have travelled together since then. She endures me, especially long spells of my annoying silences when I am lost in a thought or in resolving some inner struggle, with incredible understanding. As my physical existence has been tossed around by powerful waves in the turbulent waters of life, she has been the source of enormous strength; an anchor without which the danger of the ship losing its way is always real. We have lived together a life in which I have validated many insights and lessons I learned from Swami Brahmananda Ji and Maharaj Ji. Without the strength she gives, my engagement with this work would have been a far more complex struggle.

AUTHOR'S NOTE ON TRANSLITERATION AND PRONUNCIATION

We have chosen to adopt a simplified system of transliteration for the Sanskrit words and terms found in this book, in order not to distract our readers' attention from the meaning of the phrase, line or paragraph containing these words and terms. However, some simple rules of grammar and pronunciation should be noted at the outset.

In some instances, according to the rules of *Sandhi*, letters are altered when written together. A clear example is found in the titles of some *Upanishads*; for instance, *Kena* + *Upanishad* becomes *Kenopanishad*.

It is extremely common in this book to find the letter 'a' at the end of a word. Examples are legion and include *Yoga*, *Krishna*, *Parmeshwara* and *Atma*. In actual fact, when these words are spoken there is "almost" an 'a' at the end, but one which is half-uttered and not as overt as the English 'a'. The alternative would have been to write these words as *Yog*, *Krishn*, *Parmeshwar*, *Atm* and suchlike, which we felt would look unusual to the eyes of someone whose first language is English or another European language and would therefore also be an unwelcome distraction.

Most vowels in Sanskrit have an open pronunciation. Thus, we find that the 'o' in the word *Yoga* is pronounced like the 'o' in the English word 'flow', not like the short 'o' in 'dog'. Similarly, the long 'i' in *Ishwara* is akin to the 'i' in 'oblique' rather than the 'i' in 'die'. The short 'i' in *Bindu* is pronounced like the 'i' in 'chin'.

There is no 'th' in Sanskrit, so that when readers see 'th' in a Sanskrit word in these pages, they should be aware that this is an aspirated 't'. For example, in the word *Ghanapatha*, the 'th' is pronounced like the 'th' in 'hot-house' (*Ganapat-ha*), not like the 'th' in 'truth'. In the same way, all other consonants combined with an aspirated 'h' — bh, ch, dh, gh, jh, kh and ph — are pronounced with a distinct 'h' following the initial consonant. For instance, *Adhyatma* is pronounced *Ad-hyatma*.

Readers should note, however, that the situation is otherwise for the combinations of 'ch' and 'sh' as represented in this work. The letters 'ch' in this text may be a substitute for a 'c' which would normally carry a diacritic mark over the letter itself (as in *Acarya*, *Citta* which become *Acharya*, *Chitta*); or they may refer to the Sanskrit spelling of 'ch' as in *Chandogya Upanishad*. In both cases, they are to be pronounced 'ch' as in the word 'church'. The spelling 'sh' is a romanised transliteration of 's' which would normally carry a diacritic mark above it, in instances such as *Siva*, *Sastra*, *Sunya* (which become *Shiva*, *Shastra*, *Shunya*) and many others.

PRONUNCIATION GUIDE FOR SANSKRIT
WORDS USED IN THE TEXT

A	AS O IN SON	M	AS M IN MAN
AE	AS AI IN MAIN	M	AS M IN SIMPLE, HUM
AI	AS A IN FALLACY	N	AS N IN NOSE
AU	AS OW IN NOW	N	AS N IN LUNCH
B	AS B IN BOOK	O	AS O IN OVER
BH	AS BH IN ABHOR	OO	AS OO IN BOOT
CH	AS CH IN CHECK	P	AS P IN PUT
D	AS D IN DO	PH	AS PH IN PHOTO
DH	AS D-H IN GOD-HOOD	R	AS R IN RUN
E	AS A IN EVADE	S	AS S IN SIT
EE	AS EE IN FEEL	SH	AS SH IN SHOW
H	AS H IN HARD	T	AS T IN TOKEN
I	AS I IN IF	TH	AS T-H IN HOT-HOUSE
J	AS J IN JAR	U	AS U IN FULL
JH	AS DGEH IN HEDGEHOG	V	AS V IN AVERT
K	AS K IN KITE	W	AS W IN WANT
KH	AS KH IN KHAKI	Y	AS Y IN YAK
L	AS L IN LORD		

SECTION ONE

Introduction

*om keneshitam patati preshitam manah
kena pranah prathamah preti yuktah
keneshitam vacham imam vadanti
chakshuh shrotram ka u devo yunakti*

What is behind the mind?
What propels it to illumine objects?
What is behind the breath
Which comes in and goes out?
What sustains life?
What is behind speech?
What makes humans utter words?
What is behind the eyes and the ears?
Who propels them to see and hear?

KENOPANISHAD 1:1

*na hi kaschit kshana mapi, jatu tishtatya akarma krit
karyate hyavashah karma, sarvah prakriti jair gunaih*

Not even for a moment can a person
Stand still and do no work;
For every person is helplessly driven to work
By the 'forces of Nature'.

BHAGAVAD GEETA 3:5

INTRODUCTION



TO WONDER AND TO ENQUIRE ARE FUNDAMENTAL stimuli for all human beings. The history of modern science, which has existed for only a few hundred years, is replete with fascinating and creative responses to these irrepressible impulses. Some of its most spectacular achievements have occurred within the last century. During this brief period of human history, as scientists unravelled one mystery of nature after another and technology augmented the human tools of observation and investigation, confidence increased that the human race had left behind the era of speculation, guesswork and superstition. Excitement spread about what was seen as a sure and certain path which would enable the human intellect to find answers to all the mysteries of nature.

Sir Isaac Newton's discovery of the three famous laws enormously strengthened mankind's conviction in its ultimate triumph over nature. For Newton, space and time were absolute — that is, the same throughout the universe, and unchanging or unchangeable. Since his lifetime the march of science has been unstoppable and it has held successive generations in its intoxicating spell. This period has great achievements to its credit, no doubt. Ideas which were once considered dreams and fantasies have become reality. Science and technology have enormously enlarged the human ability to produce goods and services and employ them for gain and pleasure. Concurrently, of course, the human capacity to destroy and annihilate has increased in frightening

proportions. Modern science has also intensified mankind's ruthless drive to establish supremacy over nature.

Impressive performance notwithstanding, a sense of unease persists worldwide. There is a gnawing feel that, despite unmistakable evidence of 'progress', something critical is missing. This critical factor is happiness. In the ultimate analysis, all human endeavour has only one goal, which is to secure happiness and peace; yet this goal continues to elude mankind, resulting in a feeling of disquiet which is widely shared across continents and civilisations.

These feelings of anguish and anger are powerfully articulated by Paul Feyerabend in *Farewell to Reason* (1987): "I say that Auschwitz is an extreme manifestation of an attitude that still thrives in our midst It becomes manifest in the nuclear threat, the constant increase in the number and power of deadly weapons and the readiness of some so-called patriots to start a war compared with which the holocaust will shrink into insignificance. It shows itself in the killing of nature and of 'primitive' cultures with never a thought spent on those thus deprived of meaning for their lives, in the colossal conceit of our intellectuals, their belief that they know precisely what humanity needs and their relentless efforts to recreate people in their own sorry image; in the infantile megalomania of some of our physicians who blackmail their patients with fear, mutilate them and then persecute them with large bills; in the lack of feeling of many so-called searchers for truth who systematically torture animals, study their discomfort and receive prizes for their cruelty."¹

People often wonder if the conflicts and restlessness in and amongst nations, communities and individuals are not

in direct proportion to the increase in the 'benefits' brought by science and technology. The more ardently men and women chase happiness in their individual lives and in the outside world, the further the goal appears to move from them. This has given rise to widespread frustration deep in the hearts of individuals, even in the most affluent societies. A growing sense of bewilderment continues to agitate sensitive minds, and the backlash of this disturbing state of affairs can be seen everywhere.

At another level, the confident assumption that physics would ultimately enable human beings to discover the origins of the universe, to shape the present and discern the future, has received several shocks since the arrival of Albert Einstein. His Theory of Relativity turned the world of Newtonian physics upside down. Newton had assured us that space and time are both absolutes; space divides objects and time separates events. He asserted that space and time had — and will always have — the same meaning for every observer in the world.

In contrast, Einstein established that space and time manifest differently to different observers. His Theory of Relativity not only proved that time and space are relative, but also threw open the question as to whether absolute knowledge is attainable at all. According to Einstein: "Space and time are free creations of human intelligence, tools of thought."² His theory asserts that a stick will have different lengths when measured by different observers. Einstein also discovered that matter (mass) and energy are one and the same and are mutually convertible. He established that although matter is gross and energy is invisible and subtle, the two are interchangeable.

The idea of space also underwent a dramatic modification. As Einstein noted in an article in 1934,³ space was defined initially as the interval between two solid bodies. According to René Descartes, space is everywhere and objects are to be considered as contained in space. But this understanding has also undergone a transformation. Space is no longer seen as a container of objects; all matter is a condition of space and not separate from it.

Einstein's Theory of Relativity prohibits the transmission of matter or even information at a speed faster than light. Quantum mechanics dictates that our knowledge of the subatomic world will always be slightly blurred. The Chaos Theory confirms that even without quantum indeterminacy, we would be unable to predict many phenomena. Kurt Godel's Incompleteness Theorem denies us the possibility of constructing a complete, consistent, mathematical description of reality.

Certain fields of science are limited simply by the boundedness of their subject matter. No one would consider human anatomy or geography, for example, to be infinite endeavours. Chemistry, too, is bounded. Many chemists think the goal of understanding the principles governing molecular behaviour was achieved in the 1930s, when Linus Pauling demonstrated an understanding of all chemical interactions in terms of quantum mechanics.

When science seems to be at its most muscular, triumphant and potent, that may be when it is nearest death. "Indeed, the dizzy rate at which progress is now proceeding," Stent wrote in *The Coming of the Golden Age*, "makes it seem very likely that progress must come to a stop soon, perhaps in our lifetime, perhaps in a generation or two."⁴

In his own field, Stent asserts that the discovery of DNA's twin-corkscrew structure in 1953, and the subsequent deciphering of the genetic code which passes information from one generation to the next, left only three major questions for biologists to explore: how life began; how a single fertilised cell develops into a multicellular organism; and how the central nervous system processes information. He maintains that when those goals are achieved, the basic task of pure biology will be completed. In the field of physics, he asserts that society may be willing to support continued research in physics as long as it has the potential to generate powerful new technologies. But when physics becomes impractical as well as incomprehensible, society will surely withdraw its support.

Moreover, pure science has left some rather large questions unanswered. Exactly how was our universe created, and what will be its fate? Could our universe be just one of an infinite number of universes? How inevitable was the origin of life and of organisms intelligent enough to create science? Does the universe harbour other intelligent life forms? Lurking behind all these puzzles, like an actor playing all the parts of a play, is the biggest mystery of all: why is there something rather than nothing?

In the late 1980s Stephen Hawking declared that physics was on the verge of a unified theory, as well as a succinct description of all the basic forces of nature and a possible key to understanding the origins of the universe. By 1988 his confidence in the ultimate triumph of science had reached the dizzy heights of a speculation that a unified theory would help us to "know the mind of God."⁵

However, that surging tide of confidence has abated somewhat. Perceptive observers have already begun feeling

that "with earth-shattering concepts such as evolution, relativity, and quantum mechanics behind us, the age of scientific discovery may give way to the age of diminishing returns."⁶ And, further: "Given how far science has already come, and given the physical, social and cognitive limits constraining further research, science is unlikely to make any significant additions to the knowledge it has already generated. There will be no great revelations in the future comparable to those bestowed upon us by Darwin or Einstein or Watson or Crick."⁷

The principle of uncertainty is the latest development to administer a blow to the earlier confidence in the omnipotent nature of modern science. The general uncertainty principle states that one cannot measure both the position and momentum of a particle at the same time with relative precision. Whatever one uses to measure an aspect of a particle will inevitably change it and its other properties. Scientists assert that the basis of this principle draws on the uncertain and unpredictable nature of the universe. In essence, it is a much more deeply rooted principle. The existence of purely probable events in nature confirms the endless possibilities of our universe. It has been said that: "Indeed an entire rewriting of physics books and a new look at the world we live in must take place."⁸

The advent of this principle has sent us beyond Newtonian mechanics to a realm of infinite possibilities and new truths. Many high-energy physicists draw our attention to the exceptional nature of the subatomic realm, and to the fact that it does not correspond to any of our commonsense notions. They point out that relativity has yet to penetrate the world of common sense. "How many of us really can

accept, without denying it innately, that the faster we go, the more our rulers shrink and the slower our clocks go?"⁹

Practitioners of modern science are observing with considerable anxiety that "powerful social, political, and economic forces now oppose this vision of boundless scientific and technological progress. The cold war, which was a major impetus for basic research in the United States and the Soviet Union, is over; the United States and the former Soviet republics have much less incentive to build space stations and gigantic accelerators simply to demonstrate their power. Society is also increasingly sensitive to the adverse consequences of science and technology, such as pollution, nuclear contamination, and weapons of mass destruction."¹⁰ In a 1979 edition of the *Quarterly Review of Biology*, eminent biologist Bentley Glass (once President of the American Association for the Advancement of Science) presented evidence to back up his view that science was approaching a culmination. His analysis of the rate of discoveries in biology showed that they had not kept pace with the exponential increase in researchers and funding: "We have been so impressed by the undeniable acceleration in the rate of magnificent achievements that we have scarcely noticed that we are well into an era of diminishing returns."¹¹

If science had continued to grow at the same rate as it did in the twentieth century, Glass points out, it would soon have consumed the entire budget of the industrialised world: "I think it's rather evident to everybody that there must be brakes put on the amount of funding for science, pure science." This slowdown, he observes, was evident in the 1993 decision made by the US Congress to terminate the superconducting supercollider, the gargantuan particle

accelerator that physicists had hoped would propel them beyond quarks and electrons into a deeper realm of microspace, all for a mere \$8 billion. Naturally enough, most scientists — unlike Glass — are understandably loath to state publicly that they have entered an era of diminishing returns.

Thomas Kuhn's viewpoint conforms with the observations made by Glass, however. As author of *The Structure of Scientific Revolutions*, the most influential treatise ever written on how science does (or does not) proceed, Kuhn is of the view that "scientists cannot make any further headway, even given adequate resources."¹² Kuhn "saw that reality is ultimately unknowable and that any attempt to describe it obscures as much as it illuminates."¹³

Increasingly, the world of science is taking recourse to the language of metaphysics. Eminent scientists feel that they are not yet in contact with ultimate reality. Giants in the area of Quantum Theory have written essays with titles like "The Mysterious Vision" (Sir James Means) and "The Mystic Vision" (Erwin Schrodinger). The reason given by physicists for using the language of mysticism is that there is nothing in our ordinary language to which the events they observe in the particle accelerator may correspond. It is true, for example, that there is nothing in our language to correspond to the principle of complementarity: how can something be a wave and a particle at the same time?

Thus we can observe that this clearly is a challenging juncture in human history. Human beings cannot quietly accept that we have reached a dead end in our quest to discover the ultimate reality of our existence. A creative response to these challenges could open up an entirely new era, in which the search for knowledge and the pursuit of

peace, harmony and happiness could be closely intertwined. A breakthrough would enable mankind to disentangle itself from the frustrating situation in which the more solutions are found to problems, the more it is confronted by new ones. We have reached this stalemate because the vast potential for discerning profound truths hidden in the forgotten labyrinth of history has remained untapped.

Overawed by the intoxicating advance of modern science, so dramatically symbolised by man's flight from earth into space and to the distant planets, we have somehow missed out on the exhilarating results of the incisive enquiries made earlier in our history. These include enquiries into the mysteries of nature and the processes and forces that create, sustain and ultimately subsume us. We have also ignored the laws of nature. Living according to these laws would have ensured harmony amongst human beings and between humans and nature.

These secrets were unravelled and some of the eternal laws of nature discovered several thousand years ago, and handed down from generation to generation for the well-being of all. Subsequently, humankind lost that great trail of scientific discovery and profound knowledge blazed by the great scientists of the Saraswati civilisation. This civilisation flourished in the catchment area of the gigantic river Saraswati, which dried up and disappeared underground following a prolonged spell of drought and natural calamities. Life in the area was totally disrupted and a massive relocation of the population occurred.

The society in the Saraswati basin enjoyed a rich culture. Great minds devoted themselves to the pursuit of knowledge, particularly in regard to fundamental questions about the origin

of the universe and the laws and forces governing it. The men and women who were engaged in this search for truth were the greatest scientists of their time. They were honoured as 'seers' because their vision and discernment enabled them to 'see' the reality of the workings of the cosmos. These seer-scientists bequeathed to posterity an invaluable heritage of knowledge and insights, blending theory with carefully devised practices. This precious legacy was later lost to us.

What caused this grave tragedy in human history? A complete answer would require the collective efforts of a large number of scholars in several disciplines over a fairly long period of time. We have deliberately avoided exploring that aspect in detail, because to do so at this point would divert attention from the central objective of this work — which is to give our readers a glimpse of the forgotten insights contained in the texts known as the *Vedas*, the most ancient records of human enquiry into the mysteries of the universe.

These ancient texts, endowed with profound thoughts and penetrating expositions, have suffered grave and sustained distortions throughout history. The misunderstanding of the meaning of the single word 'Veda' has severely hampered access to the rich knowledge contained in the texts. A separate chapter is devoted to a discussion of the meaning of this word 'Veda', the original factor in the process of creation.¹⁴

The body of knowledge — consisting of four principal and six auxiliary texts known collectively as the *Veda Shastra* — explores the fundamental mysteries of our universe. Using rigorous methods of examination and evaluation, the seer-scientists of the *Vedas* provide us with answers to such questions as: How did the cosmos originate and what is its

future? Of what is it made? Who is the 'I', the individual self? What is its place in the universe?

These answers satisfy the deeply felt need of human beings to understand the nature and purpose of life on earth. They explain what maintains the existence of the cosmos and what will happen after it ceases to exist. They unravel the relationship between causes and their effects and between human actions and the fruits of these actions. They explain how energy is the foundation of matter and how matter is ultimately transformed into energy. They identify the nature and roots of ignorance and give us the means to remove them. They explain the principles, processes and factors of creation — of all that comes into being, in both microcosm and macrocosm. They analyse what comprises the human being and how it is different (and in which respects no different) from other species.

In this way they take us from the gross to the subtle, step by step; from body to mind and then to intellect, explaining the basis on which all these three function. They provide deep insights into the properties, faculties and characteristics of objects and beings. They lay bare the inner attributes of an individual and explain their interplay. They explain the true meaning of time, space and direction and their interrelationship. They reveal nature to us and the continuous changes which occur in it, simultaneously guiding us towards the unchanging foundation upon which these changes occur. It appears that the curtain has been lifted so that we can see the stable and stationary stage on which a perpetual dance is taking place. Above all, they make these insights meaningful for life, weaving them into *Dharma*, an intricate tapestry of ethics, duties, functions and guidelines.

For the reader who is totally unfamiliar with the *Veda Shastra* and the knowledge contained therein, a separate chapter is devoted to the broad outlines of the corpus of Vedic literature.¹⁵ However, a brief introduction to the current understanding of the *Vedas* is necessary at this point in order to underline the *raison d'être* for this work. The viewpoint presented in the following pages differs fundamentally from the interpretation of the *Vedas* by Western experts, most notably the British and German 'Indologists' who have translated, interpreted and commented upon these texts. This work also breaks new ground in several important aspects which differ from India's traditional scholarship of the subject.

The distressing story of the sustained and widespread distortion of the *Vedas* extends over a long period, most particularly the past 200 years, as is explained concisely in a separate chapter.¹⁶ The debate in question, while of great significance, is not central to this work and must, therefore, be left to other historians, Vedic scholars and experts. We have confined our comments to some aspects of the distortion wrought by the 'experts' who pioneered the study of Sanskrit and the *Vedas* in the West. They arbitrarily fixed the period of composition of the *Vedas* and caused confusion about the subjects covered in various texts.

Some plainly ridiculous misinterpretations were handed down as translations of the original Sanskrit texts, all of which resulted in grave misunderstanding of the *Vedas* and the suppression of their true significance. Such an elaborate falsification of ancient Indian history, quite apart from its other consequences, deprived humankind of the scientific insights contained in the *Vedas*. The distortions were a result of two clearly discernible motives: firstly, serving the interests

of British colonialism and, secondly, lending support to the proselytising activities of Christian missionaries.

Several scholars were assigned to a study of the languages, history, religion and life of the Indian people. For example, the East India Company offered Max Müller generous funds to undertake a translation of the *Rig Veda*. A new branch of specialisation known as 'Indology' came into existence and became a favourite subject of study, both for promoting the work of Christian missionaries and for consolidating the British hold over India.

Max Müller made three assertions: propositions assertions: 1. The *Rig Veda*, the oldest of the *Vedas*, was composed around 1200 BC; 2. The *Rig Veda* is a work of the Aryans; and 3. The Aryans were a foreign race of people who invaded India and subjugated the indigenous people. Overwhelming evidence is now available to the effect that each of these propositions is utterly untenable. However, so deep has their impact been, and so strong the support they received from entrenched vested interests, that these falsehoods hold sway even today.

Opinion is growing that the translations and interpretations of the 'scholars' influenced by this school of Indology are untrustworthy. Attempts to report other people's beliefs without in some way sharing them very often result in distortion and misinterpretation. Unfortunately, the objective of these 'scholars' was dubious from the very beginning, since they set out to prove that these 'religious' texts were full of irrational beliefs and nonsensical prattle. In fact, these texts have nothing to do with religion as it is defined and understood in the English language. We shall be looking at this issue in some detail in the last section of this work.

In order to provide our readers with a fuller picture of the context of the *Vedas*, we need to mention another reason for the distortion of their meaning. Despite the high degree of reverence in which the *Vedas* are held by many Indian scholars, most have tended to view them merely as a compendium of religious rites, rituals or discourses on philosophy and spirituality. Such scholars have doubtless contributed enormously to the preservation of these texts, which faced destruction during the long spell of political invasions and cultural onslaughts. They kept alive the tradition of studying the *Vedas* in the midst of the worst forms of persecution and harassment. They were often subjected to ridicule, forced into penury and personal danger. Even in these adversities they did not allow the lamp to be extinguished, and for that they deserve our eternal gratitude. But the unfortunate fact remains that the scientific insights of the *Vedas* have been concealed by the dazzling philosophy, poetry and literature in Sanskrit which were the focus of such scholarship.

The *Vedas* are no mere exertion in metaphysics, philosophy or spirituality. This is obvious from the fact that this corpus of knowledge includes and has led to the development of numerous subsidiaries of considerable practical importance. These subsidiaries include subjects like anatomy and medicine, architecture and town planning, meteorology and astronomy, language and linguistics, music and dance, statecraft and economy, social engineering and jurisprudence, psychology and physiology.

These branches of applied learning served one of the most ancient peoples with a highly developed civilisation and culture for thousands of years. People throughout the world are now turning to these ancient sources of human

knowledge for solutions to problems in such diverse areas as health care and corporate management.

The *Vedas* are works of *Vidya* or *Vijnana*, both of which terms have been translated as 'science'. However, it must be understood that the 'science' of the *Vedas* is vastly different from modern science. *Veda Vidya* deals with the factors, principles and processes which lie behind natural phenomena. Some well-meaning scholars of the *Vedas* have attempted to 'prove' that the achievements of modern science are nothing new, and that recent advances were already known during the Vedic period. This is not our assertion.

What the *Vedas* contain is a different order of knowledge — namely, knowledge of the supraphysical world, which is intimately connected with our world because the physical universe evolves from it and is an integral part of it. This book lays the foundation for an in-depth study of the laws of the supraphysical forces and helps an earnest enquirer to discern how they shape, affect and steer the physical universe.

To comprehend the true meaning of the term *Vijnana*, we shall first break it down into its literal connotations. The syllable *Vi*, used as a prefix to the word *Jnana*, is capable of conveying three meanings: special (*Vishesh*) knowledge; the variety (*Vividham*) of knowledge; and perverted knowledge (*Viruddham*). Negative or perverse knowledge is indicated by the word *Ajnana* and special knowledge is conveyed by the word *Jnana*. Therefore, *Vijnana* means 'variety of knowledge' or, to be more exact, the knowledge of variety. The knowledge of how this variegated and diverse universe evolves from one source is *Jnana*, and the knowledge of how that one source grows into a diverse, plural world of great variety is the field of *Vijnana*. Thus,

what the seer-scientists are at pains to explain to us is precisely how this variegated universe has arisen from one source. Their explanation covers the study of the forces and processes by which supraphysical energy — which is ultimately one — gives rise to this variety.

This fundamental truth about the import of the *Vedas* has been obscured by the veils of misinterpretation of critical terms such as these. Nevertheless, at this point we would like to emphasise that although this work contains criticisms of Western scholars and translators of the *Vedas*, these arise neither from xenophobia nor from a nostalgia for India's past. The distortions and falsifications to which the *Vedas* have been subjected will remain totally incomprehensible unless we understand the historical context and the role of these translations and interpretations. Intellectual integrity demands that these facts be properly underlined. This does not diminish our appreciation of their contribution in bringing several positive attainments of ancient India to the notice of the world. It is also necessary to emphasise that not every European commentator took to these studies with a negative motivation. Some were genuinely attracted by the richness of thought contained in the works of the Sanskrit scholars of ancient times, and several have showered lavish praise on ancient India's attainments in key areas.

We must also express our gratitude to a large number of Western scholars who have continued to study the *Vedas* and their subsidiaries with sincerity, dedication and devotion. But for the fact that commentaries, translations and other publications in the English language have been made available, the generation of Indians groomed in the colonial

education system would have no opportunity to become acquainted with this ancient wisdom. For all their inadequacies, imperfections and frequent distortions, therefore, we acknowledge that these works have made a valuable contribution to the retrieval and communication of the insights of the *Vedas*. Our debt to the archaeologists and researchers who have made possible the exposure of the falsification of Indian history is also enormous. We offer our deep gratitude to all these scholars and writers.

To investigate the *Vedas* fully is a lifetime's work for someone possessed of a superior intelligence. This book of necessity is a brief exploration of Vedic knowledge, written in the hope that the essence of this fount of wisdom may be conveyed to the reader in an unadulterated form. This work is offered to the reading public in the belief that its subject contains much that is valuable for today's troubled global society.

The answers to several questions which are baffling scientists and philosophers today are contained within the treasure-house of the *Vedas*, as well as the solutions to several daunting problems threatening human society. Access to these answers would open up the possibility of a quantum leap into a world of new truths and new experiences, and a study of the knowledge contained in these texts should also help in understanding the founding principles of one of the most ancient civilisations in human history. Together these could indicate to us the road to the establishment of an enduring harmony and happiness on our planet. We explore this very road in a subsequent volume of this work.

The current work attempts to introduce the reader to the unexplored treasury of humankind's ancient insights.

The discovery opens fascinating vistas and offers glimpses of the origins of the universe. It transports us to a forgotten era when the human mind had attained dazzling heights and delved deep into the mysteries of existence. Our supreme concern is to offer a glimpse of these insights of the *Vedas* in a manner which makes sense to the modern mind and yet does not distort, but only translates, the insights of the seer-scientists who composed the *Vedas*. We shall endeavour to avoid the pitfall of merely expressing our own ideas in the language of a foreign culture.

The extent of the loss we have suffered as a result of our separation from Vedic wisdom is evidenced by the structure of this book. Readers will note that comprehensive explanations of the Vedic world view are necessary for us to understand the context in which the various disciplines operate. Hence, 'Section Three: Beyond the Universe of Physics', which explores the cosmic view as laid down in the *Vedas*, is by far the longest. The reader is introduced to such aspects as essential terminology, the philosophical basis for the practical sciences pioneered by the seer-scientists, and an exploration of the very nature of the cosmos and of ourselves as individuals within it. To investigate such a complete and integrated world view demands that we pay attention to all these aspects which make up the whole.

We follow this with an exploration of Vedic spirituality in its pure form, uncovering the real meaning of the terms falsely interpreted by Western scholars as 'gods' and 'goddesses'. We include extracts from the ancient texts, liberally endowed with poetry and metaphor, to illustrate the truths of the cosmic view revealed to humankind through the *Vedas*.

We proceed to examine the practical application of Vedic insights, using the two examples of the sciences of *Yoga*, and *Ayurveda*, the traditional Indian health system. These two disciplines are both widely practised in contemporary society yet have their origins in the *Vēdas*. The seer-scientists employed such disciplines to provide practical tools for use within the broader context of universal existence, so that beings may not lose sight of the indivisibility of the individual and the cosmos.

We turn our attention next to the tools of learning prescribed by the seer-scientists. These include an investigation of the way in which the Sanskrit language was employed to both reveal and protect the truths contained within the *Vēdas*, as well as a deeper look at the seer-scientists' methods of analysis. We include a discussion of some fundamental terms, the understanding of which is essential for plumbing the depths of the *Vēda Shastra*.

After examining the reasons for the historical obscuration of Vedic truths we pause, briefly, to reflect upon the entirety of that which has gone before in this work. The chapter entitled "Reflections" is an experiential interpretation of the message of the *Vēdas* and a fundamental appreciation of their depth and subtlety.

We conclude with Appendices, which we hope will shed further light on the historical bias and distortion perpetrated upon the *Vēdas*, and which will assist us in correcting these previously false interpretations.

It is our profound wish that humanity should once again have access to the unadulterated wisdom contained within these invaluable texts, and that our readers will celebrate with us the heritage of the entire human race.

- 1 Paul Feyerabend, 1987, *Farewell to Reason*, London: Verso, p. 313
(quoted by John Horgan in *The End of Science* [1997, New York: Broadway Books]).
- 2 Glen Peter Kezwer, 1996, *Meditation, Oneness and Physics*, New Delhi: Sterling Publishers, p. 65.
- 3 Albert Einstein, "The Problem of Space, Ether and the Field in Physics" in *Ideas and Opinions*, 1982, Crown, pp. 276-285.
- 4 Gunther Stent, 1969, *The Coming of the Golden Age*, Garden City New York: Natural History Press, p. 94.
- 5 Stephen W. Hawking, 1989, *A Brief History of Time*, New York: Bantam export edition, p. 185.
- 6 John Horgan, January 1996, "The Twilight of Science" in *Technology Review*, Vol. 99, pp. 50-7.
- 7 John Horgan, 1997, *The End of Science*, New York: Broadway Books, p. 16.
- 8 Tom Werner, 27 February 1996, "A Treatise on the Nature of Unpredictability". Tom Werner can be contacted at <xxvii@dubuque.net>.
- 9 Steve Mizrach, 1996, "An Unusual Anthropology of High Energy Physics", web site <<http://web.clas.ufl.edu/users/secker1/scholarly/anth-of-phys.html>> (last modified 15 September '96).
- 10 John Horgan, *The End of Science*, p. 23.
- 11 Bentley Glass, March 1979, "Milestones and Rates of Growth in the Development of Biology" in *Quarterly Review of Biology*, pp. 31-53.
- 12 In an interview with John Horgan, quoted in *The End of Science*, p. 46.
- 13 *ibid*, p. 47.
- 14 See our chapter "The Vedas: A Prologue".
- 15 See our chapter "The Vedas: A Prologue".
- 16 See our chapter "The Vedas: Distortion and Misrepresentation".



SECTION TWO

Introducing 'Veda' and the Vedas

*rik bhyo jatam sarvasho moorrtimahuh
sarva gatiryajushee haiva shashwat
sarvam tejjah sam roopam ha shashwat,
sarvam hedam Brahmana haiva shrishtam*

All the forms are made of Rik
All motions spring from Yaju
All luminosity is a manifestation of Sama.
From these evolve all creations.

TATTERIYA BRAHMANA 3:12:9:2



CHAPTER ONE

The Vedas: A Prologue



THE *VEDAS* THAT WE KNOW ABOUT CONSIST OF four texts: the *Rig Veda*, *Yajur Veda*, *Sama Veda* and *Atharva Veda*.

Each of these texts consists of (a) *Mantra*, or *Samhita*, (b) *Brahmana* and (c) *Aranyaka*. In the *Aranyakas*, towards the end, come the *Upanishads*, a greater portion of which has been lost. These texts were destroyed in successive invasions, taken out of the country by plunderers or ruined in other ways.

The *Mantras* are crucial formulations, the basic principles expressed with great brevity. The *Brahmanas* explain and set out practical, concrete actions in pursuance of the basic principles, so they may be said to cover application. The *Aranyakas* take us into the realm of contemplation, and the *Upanishads* elaborate the philosophy of these sciences.

The word 'Brahmana', used in this context, should not be confused with one of the four sections (*Varnas*) in which society was organised in ancient India in accordance with the Vedic design. The Brahmana section of the *Varnas* devotes itself to the pursuit of knowledge and the provision of guidance to other sections in spiritual, religious and temporal matters. Brahmana here refers to that part of the *Veda* texts which provides detailed guidelines for the real-life application of the theories and principles propounded in the *Vedas*. Only 108 of the 1137 *Brahmanas* are available to us today.

The *Upanishads* deal with the underlying philosophy of principles enunciated in the Mantra portion, and their

real-life application in the Brahmana portion. So far, about 183 known *Upanishads* have been discovered, of which 10 are regarded as the most important. These are the ones to which several great philosophers and scholars in recorded history have provided elaborate and exhaustive commentaries. Several *Upanishads* are known by the first word of the text, such as the text which begins with the word *Kena*, meaning 'who' and which is known as the *Kenopanishad*.¹ Another text begins with the word *Ishawasya* and is known as the *Ishawasya Upanishad*.² However, some *Upanishads* are known by the name of the particular *Rishi* or seer-scientist who experienced and 'saw' the scientific truths enunciated therein. For example, the *Kathopanishad* is named after Katha Rishi.

The *Vedas* were handed down from teacher to disciple by word of mouth only. This demanded rigorous discipline, deep devotion and a concentrated study of several disciplines. At some point in time this demanding tradition must have begun to show strain. The great sage Veda Vyasa — author of the epic *Mahabharata* — detected a perceptible decline in both the ability and inclinations of the generation called upon to carry forward this responsibility. Fearing that this 'science of sciences' would be lost to future generations unless he undertook the enormous task of collecting, classifying and preserving it in writing, he collected the *Mantras* — which were known to some few, scattered scholars — and edited them into the four great volumes of the *Rig Veda*, *Yajur Veda*, *Sama Veda* and *Atharva Veda*. Several great seer-scientists had 'seen' these *Mantras* through years of self-observation and self-analysis. They handed down their discoveries to the next generation via their disciples, who in their turn added new milestones on their journey and left the work for their disciples to complete.

The *Vedas* are the ultimate source of the Indian ancient view of life and of the universe. All social interactions,

including all the 'religious' activities, rites and rituals of ancient India, are based on the texts of the *Vedas*. Collectively these texts are known in Sanskrit as the *Veda Shastra*. Books of Dharma like *Manusmriti*, which lay down the laws of individual and social conduct, derive their authority from the *Vedas*. Dharma is generally translated as 'religion', but the word has a much wider connotation and is not applicable to human beings alone. All individuals and entities have their Dharma, a term which signifies the qualities, attributes and specific features of an entity as well as the framework of duties, ethics and norms of conduct. For example, the Dharma of fire is to burn and to travel upwards, while that of water is to cool and flow downwards.

Various schools of Indian philosophy, such as the *Samkhya*, *Vaisheshika* and *Vedanta*, claim their validity from the texts of the *Vedas*. All other scriptures are regarded as a secondary source of validity, and their acceptability and authenticity depend on whether or not they are in harmony with the *Vedas*. In all matters of individual and social conduct the *Veda Shastra* is the final authority which cannot be challenged, and all that is contrary to the *Vedas* is rejected. The *Vedas* need no external proof to command acceptance and establish their validity, and are themselves the proof for other injunctions, laws and norms. The *Vedas* are the only texts to be revered and respected over thousands of years.

Ancient India's numerous faiths and a bewildering variety of rites and rituals remain acceptable to the followers of these faiths as long as they locate their origin in the *Vedas*. The *Bhagavad Geeta* is revered as one of India's most sacred books. It reports the dialogue between Krishna, worshipped as a divine incarnation in human form, and the Pandava prince Arjuna on the battleground of Mahabharata. It should be noted that what the *Bhagavad Geeta* says is accepted as

valid and authentic because it is consistent with the *Vedas* and elaborates the principles and truths enunciated in those ancient texts. The author of the *Geeta* has himself insisted that people should act in accordance with *Shashtra*, by which he means the *Veda Shashtra*.

The Vedic texts are an inexhaustible treasure-house of knowledge and are a book of *Vijnana*, a word which translates in English as 'science'. In fact, it has a much wider meaning than this. Books of *Dharma* and *Dharmic* injunctions, such as the *Manusmriti*, instruct us in what we should and should not do, yet do not often answer in detail the question as to why we should or should not do certain things. The *Vedas*, on the other hand, analyse and explain the 'why' of various actions and phenomena. When such questions are raised in the treatises of *Dharma* or philosophy, the questioner is directed to the *Vedas* to find the answers.

The texts of the *Vedas* are books of *Vidya*. The word 'Vidya' is derived in Sanskrit from the root *Vid*, meaning 'to know'. In other words, these texts impart knowledge. The word 'Veda' is derived from the same root, which explains why the *Vedas* have been described by sages and scholars over the ages as "abodes of knowledge or learning".

Six *Vedangas* or auxiliary sciences intrinsic to the study of the *Vedas* are: *Shiksha* (phonetics), *Vyakarana* (grammar), *Chhandas* (meter), *Nirukta* (etymology), *Kalpa* (practical, real-life applications, rites and rituals), and *Jyotisha* (astronomy/astrology). The first four are linguistic disciplines and the last two are non-linguistic. Phonetics, grammar and meter are traditionally assigned the task of safeguarding the sound aspect of the words in the *Vedas*, keeping the oral tradition intact. *Nirukta* is concerned with the correct interpretation of the words of the Vedic text, and is intimately related to *Vyakarana*.

Each Veda has a *Pratishakhya* attached to it, which examines Vedic sounds. Like the *Shiksha*, the *Pratishakhya*s are also devoted to the preservation of the correct pronunciation of the texts of the *Veda Mantras* and do their work with meticulous care, prescribing rules for prosody, phonetics, accentuation and euphonic combination. The term 'Pratishakhya' indicates that it is a practical handbook for each school of the *Vedas*. It determines the sound of *Veda Mantras*, not for a particular area alone but for the whole country.

While *Vyakarana* deals with linguistic analysis to determine the exact form of words, *Nirukta* is concerned with linguistic analysis of the words themselves, to ascertain their proper meaning within their context. It emphasises the derivation of difficult and apparently unanalysable terms. Indian seer-scientists have discussed in detail whether the relation between a linguistic item (*Shabda*) and its meaning (*Artha*) is permanent or a human invention. They maintain that a linguistic item is not merely the sound but that unit or symbol which, when articulated, brings about the notion of the meaning.

FOURTEEN BRANCHES OF VIDYA

The word 'Vidya', we noted earlier, is derived from the root 'Vid', meaning 'to know'. Vidya is thus a work which imparts knowledge and sheds light on Truth. According to the Vedic organisation of learning and skills, Vidya is organised into 14 branches. Each branch not only contains works that impart knowledge composed by great scholars, but also provides elaborate codes of moral and ethical principles and lays down guidelines for individual and social conduct.

The 14 'abodes of knowledge' include the four *Vedas* of *Rig Veda*, *Yajur Veda*, *Sama Veda* and *Atharva Veda*, as well as the six limbs or auxiliary branches mentioned above, plus

Meemamsa, *Nyaya*, *Puranas* and *Dharmashastra*. In addition, we have *Ayurveda* — the science of health care, *Arthashastra* — the science of political economy, *Dhanurveda* — the science of warfare, and *Gandharva Veda* — the science of music. Added together, these make 18 Vidyas. Fourteen of them have already been mentioned as being directly concerned with Dharma, or the principles and ethics of individual and social conduct. The remaining four do not directly deal with Dharma, but qualify as 'abodes of knowledge'.

The entire literature encompassing these Vidyas is known as the *Veda Shastra*. While all the 14 Shastras are basic and authoritative texts, the *Vedas* are their crown. The first four (the four *Vedas*) of the 14 branches of learning form the basis for the subsequent 10, and together constitute the complete corpus of ancient India's view of the universe and of life, in addition to Jnana and Vijnana.

We discuss these last two terms of profound significance in detail elsewhere in this book. To recap very briefly here, Vijnana is the knowledge of how an infinite, indivisible energy evolves into variegated diversity and innumerable identities comprising the universe. Jnana is how this variety, diversity and plurality is, in the ultimate analysis, located in unity. In other words, Vijnana and Jnana reveal how a vast infinite reservoir of energy is transformed into innumerable and diverse objects of matter which go to make this universe, and how all this diverse matter is nothing but one common energy source. Works in the *Veda Shastra* incorporate the ordinances, or the laws and edicts, which are calculated to keep people disciplined and ensure that they tread the right path; that is, a path in harmony with the fundamental principles underpinning the organisation of the universe.

These ancient texts are divided into two categories: *Shruti* — that which was heard — and *Smriti* — that which

was committed to memory. Books of Dharma are Smriti, while books of the *Vedas* are Shruti. The words spoken by the Rishis are Shruti and words uttered by those who heard the Rishis constitute Smriti. A Rishi is one who has 'seen' through his or her insight the truth, reality or essence of phenomena. The Rishis or seer-scientists have penetrated the surface appearance of phenomena to 'see' the reality behind the obvious and the apparent. Veda, therefore, is not a book. Veda is reality itself.

THE *VEDAS* AS TEXTS, AND THE PHENOMENON OF VEDA

A book tells us that electricity is caused by an electric charge, explaining how an excess or deficit of electrons in the charged substance causes that electric charge. Such a book may be entitled *Electricity* by the author XYZ. The relationship between *Electricity* the book and the phenomenon of electricity illustrates the relationship between the *Vedas* as the texts and the phenomenon of Veda. In this sense, the *Rig*, *Yajur*, *Sama* and *Atharva Veda* texts are not Veda; they are books of the *Vedas*. Veda is the original *Tattwa*, the primary factor, not the collection of sentences and verses which explain that *Tattwa*. *Rig*, *Yajur*, *Sama* and *Atharva* are four *Tattwas*, *Tattwa* being the original or primary factor which evolves into other objects. The entire universe is made from these four *Tattwas*.

The *Vedas* classify actions and applications in two separate categories. Actions in which both input and output are physical fall into one category, within which the means are physical and the goals are worldly. Actions which have supraphysical input and output — so that both means and end are supraphysical — fall into the other category. The *Brahmanas* are books of injunctions which reveal those actions and applications to us. They explain in detail the

practical actions which are performed with material input and yield material results.

The *Aranyakas* and the *Upanishads* are kept separate from the portion of actions and application. For example, the title *Brihad Aranyakopanishad* speaks of both *Aranyaka* and *Upanishad*. The Sanskrit word *Upasana* means 'to sit near' and has been incorrectly translated as 'worship', 'homage', 'service' or 'offering'. In fact, it conveys the sense of deep contemplation blended with devotion. *Upasana* and *Jnana*, or knowledge, are interrelated. Although *Jnana* is an independent path for realising the truth, Krishna has included *Upasana* in *Jnana* and has grouped the three paths — of knowledge, practice and contemplation — into two: *Jnana* and *Karma*.

The sections on action and application relate to the universe, and those on knowledge and contemplation relate to Ishwara. The word 'Ishwara' has been rendered into English as 'God'. Sir Monier Monier-Williams translates Ishwara as "master, lord, prince and God, the Supreme Being". Such a translation is one of many examples of the superimposition of their own religious and mental constructs on the *Vedas* by Christian commentators. Such a misconstruction has made several Vedic verses unintelligible. We discuss the term 'Ishwara' in detail elsewhere, most notably in the chapters entitled "Prajapati: The First Individual" and "Jeeva, Ishwara and Parmeshwara", explaining his connotation as a specific factor in the process of creation. Ishwara is a state in the evolution of the indivisible ocean of supraphysical energy into the innumerable waves which manifest as objects and individuals comprising the universe. Ishwara can be discerned in form as well as in a formless state. The *Aranyakas* teach us the *Vidya* of Ishwara in form, and the *Upanishads* lead us to the formless Ishwara.

As we begin to study the *Vedas*, we should constantly keep in view two dimensions of reality: Ishwara and the universe. Since Ishwara is variously discernible with and without form, he either possesses attributes and properties or does not. The universe is described as this world, while Ishwara is often indicated as the other. Involvement in this world enables a person to enjoy this-worldly pleasure. When a person inclines towards Ishwara, the joy which follows is 'out of the world'.

The *Vedas* consist of many *Sooktas*. The prefix *Soo* denotes 'good', and *Ukta* means 'spoken' or 'what is spoken'. *Sookta* thus means 'well spoken', a 'good word' or a 'good utterance'. Each *Sookta* consists of a certain number of *Mantras* or hymns.

When we chant the *Vedas* in the prescribed manner, we mention the name of the seer connected with each *Sookta*, as well as its meter and the supraphysical force it seeks to invoke. As we chant a *Mantra* we also refer to the ancestry of the seer. For instance, *Agastyo Maitravarunih* is Agastya, the son of Mitra-Varuna, and *Madhucchanda Vaisvamitrah* is the sage Madhucchanda who was descended from the Visvamitra.

Mantras do not openly express or explain. They reveal their 'message' by means of their indicative meaning and, in so doing, guide us to the Truth. The *Vedas* are divided into the path of action and the path of knowledge, paths which are also described as the part dealing with works and the part dealing with enlightenment respectively. The two are sometimes also spoken of as the *Poorvameemamsa* and the *Uttarameemamsa*. The *Upanishads* come at the close of the *Aranyakas*. If the *Mantra* or *Samhita* is the tree, then the *Brahmana* is the flower, the *Aranyaka* is the fruit (in its unripe stage), and the *Upanishads* are the mellow or fully ripened fruits.

The *Upanishads* are known as *Vedanta*, and form the final part of the *Vedas* in two ways. In each recension we first meet the *Samhita*, then the *Brahmana* followed by the *Aranyaka*, and the *Upanishad* comes at the end. The *Upanishads* throw light on the philosophy of the *Vedas*.

The *Upanishads* are the teachings imparted by a *Guru* to the student who is sitting close by. In the Indian tradition a student or seeker sits at the feet of his or her teacher, the *Guru*, who is his or her guide into the world of knowledge. As we mention in the chapter "Beginning the Journey", the seer-scientists or sage-teachers held the view that when a student sits close to the teacher and is receiving instruction, a secret is being conveyed to him or her or a mystery is being unravelled. What is held to be a secret in the *Vedas* is called a *Rahasya*. In the *Upanishads* the term *Upanisat* itself is used to mean the same. Those students who are not sufficiently mature are not qualified to receive these secret teachings.

The *Vedas* are divided into 1180 *Shakhas* or recensions, each with a *Brahmana*, *Aranyaka* and *Upanishad*. Many of these numerous branches have faded into oblivion. The remaining branches also face the threat of extinction because Vedic studies have been reduced to a dangerously low level.

There are some *Upanishads* belonging to recensions of which neither the *Samhita* nor *Brahmana* texts is available. The *Samhita* of the *Sankhayana Shakha* of the *Rig Veda* is no longer chanted, for example, as it appears to have been lost to us. But the *Kausitaki Upanishad*, which is a part of this recension, is extant. The *Baskala Mantropanisad*, also from the *Rig Veda*, is still available; a palm-leaf manuscript of the same is reported to exist in a library in Chennai, capital of the State of Tamil Nadu (India). But neither the *Samhita* nor the *Brahmana* of the *Baskala Krishna-Yajur Veda* is available, and although the *Kathopanishad* is famous as one of the major

universe came into being because, as we have noted earlier, the universe consists of matter and energy — and matter, as we shall see, is another form of energy.

Before we introduce the technical terms used in the *Vedas*, let us name the original source of all physical energy 'supraphysical energy'. The term 'supraphysical' is being used to differentiate between the factor which *causes* physical energy, and its *effect*, which modern science calls 'physical energy'. Like physical energy, this supraphysical energy manifests itself in various forms. It is extremely important, however, that in our endeavour to understand this phenomenon we should not continue to view supraphysical energy as another variant of energy as we understand it at present. It is useful to recall at this point what Bertrand Russell said while attempting to explain Einstein's Theory of Relativity, which we quoted at the beginning of this section. He said that we need to change our imaginative picture of the world, a picture which has been handed down from times past and has been learned by each one of us in early childhood. As Russell reminds us, "A change in our imagination is always difficult, especially when we are no longer young."⁷

Copernicus, who taught that the earth is not stationary and the heavens do not revolve about it once a day, demanded the same sort of change. To us there is no difficulty in accepting his ideas, because we learned them before our mental habits had become fixed. Similarly, Einstein's ideas will seem easier to generations of people who grow up with them; but for us a certain effort of imaginative reconstruction is unavoidable.

The opposite also occurs. An idea is lost in the wilderness of forgotten history when it no longer remains in vogue. Isaac Asimov has accentuated this fact in several of his short stories.

One of his popular science fiction stories, *The Feeling of Power*, portrays the sense of shock and bewilderment among establishment, scientists and administrators at the ability of a mechanic to make calculations without the use of computers and calculators. That he could do so with only pencil and paper created a sensation. (Excerpts from this telling story are provided in Appendix Two.) The ideas we come across in the *Vēdas* and their subsidiary branches appear to be incomprehensible today because we lost touch with them several millennia ago. Unable to understand, decipher or interpret them, some commentators have dismissed them as the prattle of mankind in the childhood of the human race. Such attitudes stem from ignorance and arrogance. The dimensions of various terms used in the *Vēdas* will become clearer as we proceed to examine them in depth.

Let us first take the statement that the most important supraphysical energy is called Prana. Energy is something for which all of us have an instinctive 'feel'. We say that we are energetic if we are ready to go out and work. An energetic person fits the scientific definition of energy, for energy is the ability to do work. The study of supraphysical energy often begins with the study of Prana, because this energy manifests itself as life in all living beings. The Sanskrit word for all living beings is *Pranee*, those possessing Prana. In the most elementary sense, Prana means "the breath of life, breath, respiration, spirit".⁸ Prana in Indian philosophy is also described as 'the body's vital "airs", or energies'. Prana was "held to be the principle of vitality and was thought to survive as a person's last breath."⁹

Prana is a basic and vital supraphysical factor in the process of creation, which manifests in several ways. It does not occupy any physical area, and is the foundation from which all matter arises. This supraphysical energy is

transmuted into numerous forms when harnessed in different quantities and magnitudes. Just as music varies when sound is set in different meters, Prana acquires different names or forms when it is set in different energy 'meters'.

In the beginning of the physical universe, all is quiet and still. What exists before this beginning? We shall explore this question as we continue our journey with the seer-scientists. For the time being, bring to mind a vast ocean, absolutely still, completely peaceful. In this ocean, a very slight turbulence occurs — a minute stir, a tiny motion. Spontaneously, as it were, ripples arise; then one wave arises, followed by another as the first wave subsides, and this rise and fall of the waves continues.

A similar process takes place in the vast ocean of supraphysical energy. The essential original state of this supraphysical force is known as *Rishi Prana*. In its primary state it is called Rishi, because that is when Prana comes into motion spontaneously. The word Rishi signifies the property of movement, of going, of motion.¹⁰ Prana is Rishi when it acquires the trait of motion.

All things are either in a state of rest or in a state of motion. The latter can be either inward or outward, rather like breathing in which we either inhale or exhale. This Rishi Prana, the primary supraphysical energy, has five states: 1. Pure rest or motionlessness; 2. Pure inward motion; 3. Pure outward motion; 4. Motion which incorporates rest in its womb; and 5. Rest which incorporates inward motion. These five states of motion are identified by different names in the *Vedas*.¹¹ Motion is the basis of all material and physical objects.

The principal Prana or supraphysical energy of motion is called *Gayatri Prana*. A precarious equilibrium of outgoing and incoming motion and a balance of outflow and inflow of supraphysical energy sustain all objects. These two

together constitute *Gayatri*, which is a fusion of two states of supraphysical energy. One is *Prana*, which facilitates an inflow of all that is essential for an object to exist; and the second is *Apana*, which facilitates the outflow of all that is superfluous to survival or sustenance. A carefully balanced interaction of these two supraphysical energies ensures the continued existence of an object.

Supraphysical energy in its original form or primary state is *Rishi*. These are pure energies, which are totally unalloyed. Sometimes the relationship between two *Rishis* or supraphysical energies is harmonious, and at other times it is discordant. Several composite energy forms arise from the interaction of these harmonious and discordant supraphysical energy flows. These are like compounds made of more than one element. Thus the interactions and consequent modifications of six compound supraphysical energies transform the original *Rishi*.

Motion is a critical attribute of these supraphysical energy forms, from which the entire universe arises. A state of precarious balance is attained as the interplay among them continues incessantly, a process which ensures the preservation of all material and physical objects. This continuous interplay of supraphysical energy or *Prana* takes place according to certain well-defined laws. Only human beings violate these laws in our universe.

How does *Prana* cause matter, energy and the physical universe? As a step towards understanding this phenomenon, we need to familiarise ourselves with two more terms, signifying the supraphysical forces which interconnect with *Prana*. These are *Mana* and *Wak*. Before exploring these two, however, we shall necessarily encounter *Atma*. This is an integral part of our exploration of the coming into being of this universe.

THE FOUR PRINCIPAL ACTORS OF THE DRAMA

The universe and its processes are a fascinating drama, a gripping interplay of supraphysical energies. In Vedic literature the word *Deva* or *Devata* is often used to denote the supraphysical energies which interact to create, modify or undo. Translations of the word *Devata* as 'god' (with a small 'g') have distorted a meaningful formulation into superstition or mysticism.

The word *Devata* represents these supraphysical energies, which are the actors on the stage of the universe. We have already been introduced to *Prana*, the key actor of the cosmic theatre, and we have now heard the names of some other principal actors in this engaging play, most notably *Mana* and *Wak*, close associates of *Prana*. But there are others also — for example *Atma* and *Brahma* — whom we need to know to appreciate this drama in all its multifaceted charm. So let us become acquainted with them a little, and explore the supraphysical domain further.

ATMA: ITS MANY-SIDED DIMENSIONS

Our universe consists of innumerable objects, and when we view the universe we see these objects. We initially focus on their shape, as being either round, rectangular, square, or possessed of some other shape altogether. The form, however, is only a shell. We then look beyond the shell at what is contained within. What is the substance within that shell? Does it contain something solid, liquid or gaseous?

Even after we have seen the form and the content, our knowledge of the object is still incomplete. We are not able to differentiate between the sun and the moon, between gold and iron, between milk and alcohol, because our knowledge of an object becomes complete only when we come to know its functions. Every object defines itself by its form,

substance and function; together these constitute the body of the object. The Atma of an object is that from which it evolves, in which it resides and which is all-pervasive in every object uniformly.

Atma is a relative word. The statement "I am a father" implicitly conveys that there is someone who is my child and whose father I am. Child, student, teacher and so on are words that express relationship with another or others. Similarly, Atma is relative to the body. In other words, there is something else besides Atma, and this something else is called 'body'. The body is evolved from Atma and maintains its existence in it. The body cannot exist without Atma, nor can Atma be called as such without a body. Since our universe consists of objects, that which is true of the body-Atma relationship is also true of the universe-Atma relationship. This universe of ours arises from Atma, is sustained by it and ultimately dissolves in it. We shall be exploring this relationship in greater depth later.

ATMA: DIFFICULTIES IN COMPREHENSION

As we have just noted, every object has a body and every body has several parts. In normal parlance we say that a body has limbs. Try to imagine something which has no parts, or a body without limbs. If we do not know the parts of a body, we cannot know its boundary. Such an object — it would be wrong, in fact, to describe it as an object — would be without limits. There would be no portions in it which could be differentiated from other portions of the same body. Different types of products would be created from it. Indivisible, without any limbs, parts or divisions: this is the principal Atma.

The function of the mind is to know. Mind is able to grasp an object by distinguishing it from another object.

But as long as mind is unable to grasp an object, obviously it will not be able to distinguish it from another object. This is the nature of mind. It becomes possible for the mind to grasp an object because every object has its own specific name, form and function. We differentiate a car from an aeroplane because each has a specific name, they differ in their respective forms, and they have their specific and different functions. Their parts define their boundary or limit.

Since Atma is indivisible, unlimited and all-pervasive, there is no place, location or point which is devoid of it. Therefore the mind cannot distinguish Atma from other objects. Consequently, the mind is unable to grasp Atma's form and Atma is described as unknowable.

For example, we have come to know of the word 'water' and, alongside that name, its properties; namely, that it is liquid and colourless, that it flows, that an object which comes in contact with it becomes wet, and so forth. Similarly, when we hear the word 'fire', we know the word as well as its attributes; namely, that it burns, causes heat, emits light, etc.

Every word identifying an object contains two components, one of which underlines its specific features or attributes and the other which highlights that object whose attributes or features are enumerated. To put it another way, specific attributes are adjectives, and that which has its attributes enumerated is the noun. Noun and adjective go together, the adjective being the qualifier. An adjective and a noun are often combined to indicate a specific meaning. In such cases, the adjective points our attention to a specific attribute of the noun. Something that is everywhere becomes comprehensible only when it is encased in some limits by an adjective. Life, for example, becomes comprehensible

when we qualify it as human life or animal life. Often we have to comprehend something by another qualifier, the function. These qualifiers are adjectives. Unless we are able to grasp the 'message' of the adjective, we will not be able to find a word which will enable us to understand an all-pervasive phenomenon.

Such a phenomenon is called indescribable when it has no name, form and function firmly incorporated in it, nor any divisions. Its basic Tattwa, therefore, remains beyond the domain of speech and mind. (Tattwa is the elementary property or subtlest essence of an entity. As it reveals the true nature of a 'substance' and is the true principle of an entity, it reveals the truth of that entity or 'substance'.)

The seer-scientists tell us that this Atma is Brahma: formless, without attributes, without functions, indivisible and completely silent or inarticulate.

WHEN DIVISIONS ARISE

However, suddenly and spontaneously divisions arise in Atma, which was previously without any such divisions or parts, and in the process it rapidly becomes transformed. In that which was one, three facets suddenly become discernible; its indivisible splendour acquires three dimensions.

This is the beginning of the process of creation, which transforms one limitless, indivisible entity into a three-dimensional one. The former is described as Brahma;¹² when divisions arise in it, it becomes known as Atma. The science of Apara examines how creation proceeds from this three-dimensional Atma. The process of transformation of the one uniform, harmonious, indivisible principle into three is a process of modification involving three 'elements' which are always present in creation. The whole of creation has emerged out of these three — Prana, Mána and Wak.

PRANA, MANA AND WAK

As you would have noticed, in our journey to discover what existed before the physical world came into being, we have begun by exploring the supraphysical world. While the body-mind-intellect equipment can grasp the physical factors easily, in exploring the supraphysical world this equipment is, no doubt, an aid but is not sufficient in itself. So now we have to expand the horizons of our comprehension.

When we seek to know the universe, this process of exploration comprises several factors. We shall consider each factor as an 'element'. In the first instance, we become aware of an object; so awareness or knowledge is the first 'element' present in the object. Then the object performs a function, which is a manifestation of its property of motion. Its functions are a consequence of the activity taking place within the object and so the second factor, called 'activity' or 'motion', relates to its function. The third 'element' is the matter or substance of the object.

In this way we encounter three 'elements' or factors in the universe and in every object constituting the universe. We could also describe them as three dimensions of a single object. To summarise, they are: 1. Knowledge or awareness; 2. Action, function or motion; and 3. Matter or substance. To facilitate our understanding of these three, we could liken them to consciousness, energy and matter. On a more uncomplicated level, we could call them mind, motion and matter. The *Vedas* call them Mana, Prana, and Wak.

All physical objects undergo a process of continuous change. They exist only for a certain period of time and then change or cease to be. But Prana, Mana and Wak are always present. In fact, an object comes into existence when these three combine to produce a form. Prana rests on the basis of Mana and functions according to its directions. Wak is

the substance in an object, the matter within the shell. All matter is created from Wak.

The special attribute of matter is that it occupies space. This enables us to locate an object with reference to another object; we can indicate it by describing the direction of its existence in relation to other objects. We can say, for example, that the chair is located south of the table, east of the bookshelf and west of the study door. We can also explain that the chair is used for sitting on. In addition, there is the time frame within which matter comes into being and ceases to exist. Thus, all matter is defined or limited by direction, location and time.

THE SYMPTOMS OF MANA

In contrast, Mana has no specific form and cannot be seen. Our comprehension of Mana becomes possible only by noticing its functions.

It will be easier for us to comprehend the supraphysical factor called Mana if in the course of this exploration we liken it to the physical factor called 'mind'. A question may arise as to whether mind is thought of as a physical factor when it cannot be seen, touched, tasted and so on. In the Western tradition, mind is the complex of faculties involved in perceiving, remembering, considering, evaluating and deciding. Mind is, in some sense, reflected in such occurrences as sensations, perceptions, emotions, memory, desires, various types of reasoning, motives, choices, traits of personality, and the unconscious. The many materialistic philosophies which have arisen through history maintain that what are called mental events are really certain complicated physical events.

According to these theories, mental processes are entirely determined by physical processes. 'Making up one's

mind' is, therefore, a real process caused by bodily processes. The seer-scientists of the *Vedas* distinguish the bodily processes and bodily structure from physical processes and structure. Both sentient and inanimate objects have a body (*Shareer*). A table, a chair, a bird, a dog, an elephant and a human being all have a body. But *Adhyatma Sanstha* — which we translate as the 'physical entity' or 'physical arrangement' — includes the body, mind and intellect, the three facets operating on a common platform called Atma.

Although every object has a body, we distinguish between material objects — which are predominantly 'body' — and sentient beings which have more than only a body, in that there are the other facets of mind and intellect in varying degrees of manifestation. In material entities, aspects other than the body are unmanifest. Atma is a triad of Mana, Prana and Wak, and the proportion of the three Tattwas varies in different entities and in various species. But no entity is bereft of or beyond Atma. The difference and variety lie in the degree of manifestation of the components that comprise Atma or its three facets. The term *Adhyatma Sanstha* is used for human beings because it is in this species that all the three facets are fully evolved and manifest. This is why the seer-scientists are of the view that nothing is superior to human beings.¹³

Beyond this physical universe is the supraphysical universe, the universe of the Devatas or the world of supraphysical energies, known as *Adhidaivata*. The world of matter is called *Adhibhoota*. Since readers are not yet conversant with the entities in the supraphysical universe, we are using the entities known to us in the material or physical plane to indicate the existence of supraphysical entities and enable our readers to move towards understanding them.

Our hand has to move if it wishes to hold an object; but an object comes to our mind when we merely think of it. Whatever object may come to Mana, it does not stay there. When we dye a piece of cloth, the colour sticks or adheres to it, and when we pour oil into a container, it sticks to that container. But Mana does not stick to anything forever. When an object comes to our mind, we hold it there and it remains within the mind's grasp until something else replaces it. Similarly, as long as Mana has an object within its grasp it appears to be totally immersed in it. But when it abandons or discards that object, it moves away from it completely, to become immersed in something else. For example, when our mind is thinking of red, it acquires and adopts the red colour. It 'becomes red', we could say. Then it thinks of white and becomes white so completely that the redness completely disappears. Mana behaves in exactly the same way, and this is why the seer-scientists call Mana 'that which does not stick'.

If we look at the vast space in the sky, we find that it always has air, water and other objects in it, but it does not adhere to them nor become immersed in them. Similarly, Mana is associated with all objects without adhering to any of them. It can comprehend its own Mana within itself; in other words, it can know its own mind. But it cannot comprehend anyone else's Mana. We already understand this, in a sense, because we realise that an individual can know his or her own mind, but cannot know what goes on in another person's mind. Mana, like consciousness, is akin to the vast space in the sky, in which objects arise, appear to pause for a while and then go. Mana is always full, irrespective of the size of the objects occupying it. Like the mind, Mana is as full when it holds something as tiny as a dust particle as it is when it has a mountain in it. It assumes the form and colour of the object with which it is associated at that moment.

No action or activity takes place in Mana. Activity only appears to exist in Mana because of the presence of Prana. On its own, Mana is inactive.

PRANA AND MOTION

Prana always remains active, eternally and continuously, and all activity in the universe is a manifestation of Prana. Prana has several characteristics, the first of which is that it generates a vibration in an object. (Vibration anywhere is a sign that objects have come in contact with Prana.) This vibration is discernible as activity or motion, and results in a part of the Prana in the object being spent and disappearing from the object in which the motion has taken place.

If a drop of water is taken from a pond, it makes no perceptible difference to the pond. Similarly, no diminution in Prana is noticed when a finger is moved or a person walks, although such activity does entail expenditure of Prana. In reality, Prana becomes diminished even in these insignificant activities, albeit in extremely small measure. This can be illustrated by our experience of fatigue when we perform even a relatively effortless activity for a long time, which involves a decrease in Prana. We recover from that exhaustion and the fatigue vanishes when Prana is replenished from the atmosphere.

The second characteristic of Prana is that it lacks any of the five subtle elements known as *Mahabhootas*.¹⁴ Whenever these subtle elements clash with each other, this results in sound; but this does not occur when a portion of Prana clashes with another. When air blows forcefully around us, we feel it; but we do not feel the impact of Prana on us at all.

Prana has neither colour nor taste, and it has no smell. Therefore it cannot be called 'matter'. But it has a unique power of movement by which we may easily recognise it.

For example, if we mix a little water with clay to form a lump, that lump of clay remains cohesive after it has dried. The clay was brittle and loose before we started our experiment, but it becomes a solid lump at this later stage, indicating that a new ingredient has been added to the clay to convert it into a lump. It is Prana which holds and supports disparate objects together.

One may argue that the particles of clay have some inherent quality of attraction, which holds all of them together. If this were the case, the clay would not have been brittle and loose in the first instance. Likewise, if we hit the lump of clay, we crush it into pieces, which could not happen if its cohesiveness were intrinsic. The inescapable conclusion is that clay particles have no intrinsic quality of attraction, and therefore some other factor must join the clay to sustain or hold the particles together. This other factor is Prana. Prana 'wraps itself around' particles of matter in such a way that all the atoms of that mass try to adhere to each other. Atoms are able to behave in this way because of the existence of Prana.

The third characteristic of Prana is that it never exists without matter. It always remains in Wak and discharges its property of holding and sustaining Wak.

(Prana is of four types. The first ensures that all objects in the universe remain at their appointed locations. The second has the quality of expansion. The third has the quality of solidification, and the fourth can convert one thing into another — for example, grass is converted into milk after being consumed by cattle.¹⁵)

The fourth characteristic of Prana is its quality of fastening or clinging to something else. In the case of Mana, as we have seen, nothing sticks to it permanently. In contrast, Prana has the quality of always adhering to matter

in such a manner that Prana and matter are never seen separately. There is either matter permeated with Prana or Prana permeated with matter.

Prana ties or holds Mana because of its superior power of adherence. Therefore, Mana remains tied to the body of human beings who exist and survive because of Prana. While thinking of a subject Mana can run here and there, but it can never desert Prana. To remain tied is not an intrinsic trait of Mana, but the force of Prana keeps it so.

The fifth trait of Prana is flexibility. It can remain confined in a small area, yet can subsist in a large area with equal facility. For example, it can be found in the flame of a lamp as well as in the light emitting from it.

Its sixth characteristic is obedience to Mana, in that Prana will not engage in any action without Mana. Prana does not move even a finger without the will of Mana. If someone is holding an object in his hands when he drops off to sleep, his grip loosens, his hand opens and the object falls from his hand. This is because the actions of Mana have temporarily stopped.¹⁶ If Prana were free to hold onto that object, its operation would not cease even after the onset of sleep and the hand would maintain its grip. Other activities such as breathing, the heartbeat and the functioning of the digestive system continue without interruption when the operations of Mana stop during sleep.

Prana's seventh characteristic is that it never sleeps, unlike Mana which is sometimes awake and sometimes asleep. (At other times Mana exists in a state between deep sleep state and waking state, called the 'dream state'.)

Prana's eighth trait is indefatigability. Hard work tires Mana, which then needs to rest. In contrast, Prana never tires and never needs to rest. If tiredness is noted in Prana, it should be viewed as the fatigue of Mana, whose job it is

to motivate and spur Prana to action. When it is tired, Mana cannot send the impulse to act. This gives the impression that the operations of Prana are coming to a close.

Movement or transiting is Prana's ninth characteristic. It transits from one object to another. There is a certain measure of Prana in an object; if another object joins the first, the Prana in both combines and is equally distributed throughout the conjoined object. For instance, when a cold object is mixed with an extremely hot one, the heat is evenly distributed throughout the two.

The 10th characteristic of Prana is that it moves, halts and then moves again, rather like a frog.

As we continue our exploration of the coming into being of the universe and the processes that spur creation, we shall frequently witness the role of Prana. We should therefore always keep in mind the 10 characteristics of this very important supraphysical force. Let us now identify the qualities of the other supraphysical energy, Wak.

THE QUALITIES OF WAK

Firstly, Wak occupies space. Unless the Wak already occupying a particular area is removed, new Wak cannot be located or installed there.

Secondly, Wak can be modified. It undergoes modification from one form to another, resulting in a change to the initial form.

Thirdly, Wak accepts or seizes Prana and later abandons it, transferring its attention to new Prana and making that new Prana its base. For example, a human body is formed on the basis of Prana. It comes alive because Prana is injected into what would otherwise be a lifeless assemblage of flesh, skin, bone, blood and so on. (This is why Prana is also called 'life' or the 'life-force'.) The body gradually ages and decays

Upanishads, its *Aranyaka* is not available. The *Atharva Veda* is studied in one or two areas only, while the *Prashna*, *Mundaka* and *Mandukya*, which belong to this Vedic text and which are among the 10 well-known *Upanishads*, still exist today.

It is believed that there were many *Upanishads*. Two hundred years ago, an ascetic belonging to Kanchipuram (a town in Tamil Nadu) wrote a commentary on 108 *Upanishads*, earning for himself the name 'Upanishad Brahmendra'.³

The first Shankaracharya⁴ selected 10 of the numerous *Upanishads* to comment upon, from the non-dualistic point of view. Ramanuja, Madhav and other saint-philosophers who came after him wrote commentaries on the same texts, based on their own philosophical points of view.

The *Isha* or *Ishawasya Upanishad* occurs towards the end of the *Samhita* of the *Shukla Yajur Veda*. As mentioned earlier, the name of this *Upanishad* is derived from its very first word, *Ishawasya*. Next follows the *Kenopanisad*, which is also called the *Talavakara Upanishad* since it occurs in the *Talavakara Brahmana* of the *Sama Veda*. The *Kenopanisad* examines the nature of ultimate reality in depth, while the subject-object relationship is explained in the concluding part of the *Kathopanisad*.

The *Prashnopanisad*, *Mundakopanisad* and *Mandukyopanisad* are all found in the *Atharva Veda*. *Prashna* means 'question', and in this text many important questions are asked and answered, such as: what is the origin of various creatures? What supraphysical forces sustain them? How does life imbue the body? What is the truth about wakefulness, sleep and the dream state?

The *Mundakopanisad* discusses how this varied and variegated plurality of our universe finally dissolves into one fundamental source, in the same manner as different rivers with different names lose their names and forms in the ocean.

Manduka means 'frog'. The frog does not have to go step-by-step because it can leap from the first to the fourth step. Likewise, the *Mandukyopanishad* shows us the way to reach the *Tureeya* or fourth state, from the state of wakefulness through the states of sleep and dreaming.

The *Tatteriya Upanishad* is part of the *Tatteriya Aranyaka*, and this is perhaps more widely studied than any other *Upanishad*. The *Aitereya Upanishad* forms part of the *Aitereya Aranyaka* of the *Rig Veda*, and its name is derived from the sage Aitereya who made it widely known.

The *Chandogya* and *Brhadaranyaka Upanishads* are the last two of the 10 major *Upanishads* and are also the largest. In fact, they are larger than all the other eight of the 10 put together. The first is part of the *Chandogya Brahmana* of the *Sama Veda*. *Chandogya* means 'relating to *Chandoga*', one who sings the *Sama*.

The *Brhadaranyaka Upanishad* comes last. 'Brhad' means 'great', and it is indeed a great *Upanishad*. Generally, an *Upanishad* comes towards the close of the *Aranyaka* of the *Sakha* concerned. While the *Ishawasya Upanishad* occurs in the *Samhita* of the *Shukla Yajur Veda*, the *Brhadaranyaka Upanishad* is in the *Aranyaka* of the same *Veda*. As a matter of fact, the entire *Aranyaka* constitutes this *Upanishad*.

In the *Brahma Sutra*, Vyasa presents the substance of the 10 (principal) *Upanishads* in an extremely terse form. The word 'Sutra' literally means a 'string'. Every doctrine or thought-system in the Vedic lexicon has a *Sutra* (texts consisting of aphoristic statements), a *Bhashya* (commentary) and a *Vartika* (elucidation of the commentary). A *Sutra* states truths in an extremely concise form; it expresses an idea or truth in the least possible number of words.

Over the millennia, the significance of the scientific truths contained in the Mantras and the meaning of their

application in life, as elaborately enunciated in the *Brahmana* portion of the *Vedas*, have faded. Scholars possessed of great incisiveness and erudition have confined themselves to the *Upanishads* in which there is considerable room for philosophical impulses to have their play.

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- 1 In Sanskrit grammar, the hidden 'a' in the last consonant of a word turns into 'o' when the two words combine, eg. 'Kena' + 'Upanishad' becomes *Kenopanishad*, 'Katha' + 'Upanishad' becomes *Kathopanishad* and so on.
 - 2 In accordance with the rule of euphonic combination in Sanskrit grammar, as indicated above, if a word ending with "a" is followed by a word beginning with 'u', the two are joined together and therefore Ishawasya + Upanishad is also written as *Ishawasyopanishad*. Similarly, Kena + Upanishad becomes *Kenopanishad* and Manduka + Upanishad becomes *Mandukopanishad*.
 - 3 Jagadguru Shri Jayendra Sarsawati Swami (the 68th Shankaracharya), 1996, *Hindu Dharma*, A Collection of Discourses, Mumbai: Bharaitya Vidya Bhawan, p. 25.
 - 4 Born in Kaladi village (now in the Indian state of Kerala), Shankaracharya is the most renowned personality in the history of Indian philosophy. He revived the study of the *Vedas*, and became an ardent exponent of the Advaita Vedanta school of philosophy. He wrote commentaries on the *Brahma-Sutra* and the principal *Upanishads*. He travelled all over India, holding discussions with philosophers of different creeds. His heated debate with Mandana Mishra, a philosopher of the Meemamsa school (whose wife served as referee), is perhaps the most interesting episode in his biography. Shankara was active in a politically chaotic age and is credited with rekindling the study of the *Vedas*, most notably Vedanta.



SECTION THREE

Beyond the Universe of Physics

*atha kabandhee katyayana upetya paprachha
bhagwan kuto ha wa ima praja prajayante iti*

*tasmai sa howacha prajakamo wai
prajapatih sa tapotapyat sa tapastaptwa
sa mithunam utpadyate.
rayi cha prana cha ityetau me
bahudha prajah kjarishyat iti*

The student Katyayana enquires:
“O Revered and Venerable Master, whence
are these creatures born?”

Pippalada, the teacher, answers: “Prajapati
created a pair — *Rayi* (matter) and *Prana*
(energy) — thinking that between them they would
produce creatures in many ways.”

PRASHNA UPANISHAD 2:3-4



CHAPTER TWO

Beginning the Journey



LET US BEGIN OUR JOURNEY OF EXPLORING THE insights bequeathed to us by the seer-scientists of ancient times by going back some 6000 years. We are on the banks of a vast river flowing in the middle of a prosperous, green and fertile valley. Clusters of houses throbbing with vigour and activity dot the landscape. Men and women rise before dawn and offer homage to the sun, the source of life and light. They water the trees and feed the birds. Melodious, chanted verses rest on the air. The atmosphere is serene and the people exude a sense of peace amongst themselves and harmony with nature. Contentment shows on their faces.

A few minutes' walk from the river stands a simple but elegant hut, in which resides a scientist. He is called a 'seer' because he has 'seen' the unfolding of the mysteries of the universe. Reality often reveals itself to the seeker. Of course, before that moment when reality is seen in a flash, the scientist has to court nature for a long period of time with single-minded devotion; for she does not easily allow an unwanted intruder even a glimpse of the mysteries concealed in her breast. The 'seer' we observe coming to his hut after a bathe in the river has spent a long time exploring nature. At one point he sees the truth in a thrilling flash of insight, yet at the same time he feels the burden of a great responsibility. For when nature reveals one of her secrets, she transfers considerable power into the hands of human beings. The seer-scientist is acutely conscious that this power may be misused.

The news spreads far and wide and people flock in large numbers to learn the secrets the seer-scientist has uncovered. He is cautious. He is aware that knowledge about the mysterious workings of nature could be used equally for the destruction of humankind as for its well-being. So he selects his students with care. They must be discerning, discriminating and dedicated. Those who are initially deemed eligible to receive this knowledge are subjected to several rigorous tests.

But even these precautions, although elaborate, do not satisfy the seer-scientist and his colleagues. While they are happy that their students, as seekers of knowledge, are ready to make an abiding commitment to the well-being of humanity and to peace on this earth, they feel that this is not sufficient. If the ruling establishment were to put pressure on these individuals, despite their good intentions they would find resistance extremely difficult. The future of humanity must be safeguarded from the capriciousness and avarice of the powerful.

Our seer-scientist consults his fellow seer-scientists. Some colleagues read his mind and share his concern. They devote themselves to the task of designing and developing a social structure which would ensure that no section of society is powerful enough to misuse the fruits of knowledge. They are especially concerned about human greed and the irrepressible desire of the short-sighted to try to exploit and extract the maximum from the bounties of nature in the shortest possible time. They are also aware of the dangers of concentration of power — intellectual, military, economic and political. Therefore, they ensure that such a concentration does not take place in the design of their socio-political structure.

The seer-scientists have a tremendous love for nature because she has enabled them to see what was hidden within

and behind her inscrutable exterior. They, accordingly, wish to ensure harmony between human beings and nature and amongst human beings themselves. (The design, development and subsequent degeneration of their social structure is the subject of an independent study.¹)

Having selected the students who are genuine seekers of truth, studious, dedicated and humble, the seer as teacher begins to impart, step by step, the knowledge he has discovered. The instructions begin at a mundane level and, as the students' understanding grows, the lessons become more subtle and sophisticated. As students of modern science know, at some stage in the study of scientific truths, our ordinary language becomes inadequate to communicate the profound and complex processes which lie behind a simple phenomenon. Mathematical formulae, symbols and codes are then used to convey these fine principles and intricate processes.

These seers, the scientists of the ancient days, tackle the problem by discovering a language which is exact in its etymological structure and rigorous in its discipline of pronunciation, prosody and grammar. This language, Sanskrit,² plays an invaluable role in the preservation and communication of their knowledge.³

The seer-scientists find a striking parallel between the origin and unfolding of this vast universe and the process of development from the primal sound to the alphabet, words, sentences and, ultimately, the fully developed language. It may be compared to the evolution of a small seed into a huge banyan tree with numerous intertwined branches, several of which descend underground to give rise to new branches. Sanskrit meticulously follows the laws of nature in its evolution, in terms of word origin from a root, pronunciation, and grammar.

The seer-scientists detect another area of fascinating similarity. The process of the birth of a human being, his or her subsequent development and the unfolding of hidden potential follow a course similar to the evolution of language from the primal sound. This makes the task of communicating with the students somewhat easier; they can be guided towards a direct experience of the process and forces of creation. The teachers hope that the students will follow the path to self-discovery with greater facility than if they were called upon to confront directly the profound mysteries of the universe.

However, the students are not interested in mundane questions. They have come to the teacher after spending several years in the study of various arts and sciences and are impatient to further their knowledge. They are anxious to know how this universe was created and who created it. They want to ask what there was before the universe was created, and what will happen when this universe no longer exists.

The seer-scientists choose dialogue as a form of imparting knowledge. When Katyayana and five other students approached the seer Pippalada, he asked them to stay with him for one year, saying: "Then you can address your enquiries [to me] and I shall reply to them if I know the answers." This conversation, recorded at the beginning of the *Prashna Upanishad*,⁴ highlights the humility of the great teacher and the importance of patience in internalising these subtle and significant truths.

Several great teachers are engaged in studying the forces and factors which govern the universe, and each teacher becomes a centre of learning. Groups of students gather around them, seeking out these wise men out of a strong urge to find answers to the questions stirring in their minds. The recorded dialogues are illuminating, and the knowledge within them will

be carried from generation to generation, from one teacher to another. Thus the tradition will be kept alive.

The *Mundaka Upanishad* begins with the statement: "Brahma gave out the knowledge of Reality, the knowledge of all knowledge, the foundation of all sciences, to his eldest son Atharva. The very knowledge which Brahma taught to Atharva he taught to Angiras in ancient days; and he taught to one of the Bharadwaj family named Satyavaha; and Satyavaha taught it to Angiras — the knowledge was thus handed down from the Senior (teacher) to the Junior (student)..."

"The great householder Saunaka approached Angiras in an appropriate manner and asked him: 'What is that, Sir, which being known all these become known?'"

"Angiras answered him thus: 'There are two kinds of knowledge to be acquired, namely, *Apara* and *Para* — lower and higher — according to the great scientists who have mastered the workings of the universe.'"

Here is another example of a teacher-student dialogue:

"O my Lord (the great teacher), teach me the highest science of reality, studied by the wise and the superior, which is (otherwise always) a mystery. (Teach me the knowledge) by which a person is able to discard all his failings and reach the highest state.'

"You can (know this) by dedication, devotion and meditation,' said the great teacher, and then went on to explain the science of the universe and how to transcend this state of existence."

Here follows another exchange, again between student and teacher:

Question: "What was that forest? In that forest which tree was it that, by cutting and pruning, this triple world of earth,

space and sky were made? O scholars, deliberating on these two questions in your minds, seek their answers from the teachers of the science of creation. Also ask of those teachers, who is that principle, that element carrying these seven houses on itself? What is the cause, the Brahma, of all these seven?"⁶

Answer: (The teacher replies) "Brahma was that forest. In that forest Brahma was that tree. Cutting and pruning that Brahma-tree made this triple world. O questioner-scholars, I am telling you after thorough investigation that Brahma is carrying all these houses completely and Brahma alone is presiding over these worlds."

It is necessary to know the meaning of the terms Para, Apra, and Brahma in order to understand what the teacher is conveying in reply to the queries of the students, or in the course of elaboration of the subject under study. Even those who are conversant with the words used in such dialogues very often take them to mean something entirely different from that which they actually communicate. The use of words with several layers of meaning and the other dimensions of the problems of power and the limitations of language as a tool of communication are discussed in our chapters entitled "Word and Meaning: The Importance of Grammar in the Study of the *Vedas*" and "Language and the Seer-Scientists of the *Vedas*":

Several renowned translators and commentators of the *Vedas* have been baffled by the questions and answers between student and teacher, or amongst teachers themselves. This is because of their inability to penetrate the various layers of meaning and to discover the full implications of a formulation or the exact sense of a word. This is not surprising. Principles expressed in the language of mathematical equations remain hidden from those who are ignorant of that language.

These ancient texts have used language as a phenomenon vibrant with life. We request our readers to

have a little patience. We shall attempt to limit to the minimum the use of highly technical terms or widely misunderstood words and symbols. When their use cannot be avoided, we shall endeavour to explain them fully.

In this work we shall be studying and reflecting upon the coming into being of our universe. We shall provide an introduction to the forces, factors, processes and laws of the universe. In doing so, we shall need to pause a little at various stations on the course of our journey. The seer-scientists have expressed themselves on occasions in terse prose, and at other times in enchanting poetry. It is no wonder that their hearts should overflow with joy into poetry, because the discovery of the secrets of nature brings ecstasy.

Whatever the form of expression, the student is faced with a serious challenge. The prose is often full of technical terms, symbols and codes, and in order to understand the poetic expressions a seeker must have a 'feel' for the environment, culture, context and imagery. The seers use a form of communication which is indirect and at times may appear a riddle to the uninitiated. For these reasons, it is appropriate to proceed by taking a few terms which are pregnant with several layers of deep meaning and sharing their broad definition, connotation and nuances with our readers. We begin with an exploration of the meaning of the word Prana.

PRANA: THE SUPRAPHYSICAL ENERGY

namaste astwayate namo astu parayate

namaste prana tishthata aseenaayota te namah

Homage to thee, O Prana, when thou comest, when thou goest:
Homage to thee when standing still; homage to thee when sitting!

ATHARVA VEDA 11:4:7

pranah Praja anu vaste pita putramiwa priyam
prano ha sarvasya Ishwaroyachcha pranati yachcha na
 Prana takes [living] creatures as its garment,
 As father [takes] his beloved son.
 Prana is the Lord of all,
 Of whatever breathes and what does not.

ATHARVA VEDA 11:4:10

Everybody knows that Einstein did something astonishing, but very few people know exactly what it was. It is generally recognised that he revolutionised our conception of the physical world, but the new conceptions are wrapped up in mathematical technicalities. Many of the new ideas can be expressed in non-mathematical language, but they are nonetheless difficult on that account. What is demanded is a change in our imaginative picture of the world... A change in our imagination is always difficult, especially when we are no longer young.

Bertrand Russell, *The ABC of Relativity*

All investigations begin with observation. Investigation about the universe, therefore, must also begin by observing it. In concrete terms, this means observing the numerous objects and phenomena which comprise the universe. When we look at an object we begin by observing its gross form. As we look further, we observe its contents which consist of numerous substances, each of which may comprise one or more compounds. Each compound may have two or more elements. By following this route of investigation, we are led to the elements which constitute each of the compounds.

A deeper investigation, perhaps in a laboratory, enables us to know the compound, the elements and other, subtler parts of the object. In the first instance we see milk, for

example. Then we find that it consists of water and certain other substances. Further investigation reveals that water consists of two molecules of hydrogen and one molecule of oxygen. Hydrogen is an element, and all elements consist of a certain number of atoms. Each atom consists of electrons, neutrons and protons.

In this way we find that scientific observation proceeds from the gross to the subtle, and for different levels of observation we need different tools. For subtler levels of investigation, we clearly need more sophisticated tools, because observations made by equipment are valid only to the level of sophistication of the particular tool. As we move towards the deeper levels of investigation, the equipment becomes more sophisticated so that the earlier findings are superseded by more recent and subtler observations.

Students of modern science know that the universe consists of matter and energy. In contrast to matter which occupies space and has mass, energy occupies no space and has no mass. Energy may be defined as that which is used when work is done, or as the capacity to do work. We do work as we walk, talk, sing, lift a table, write or dig a hole. An engine works when moving an automobile, a jet works when propelling an aircraft, a horse works by pulling a wagon, and an atomic explosive works by digging large holes. There is an unlimited variety of work that can be done.

However, a limited number of different kinds of energy are available to do this work, and they can be exhausted. Nuclear energy can be released in nuclear reactors and nuclear weapons. A falling body, such as an apple dropping from a tree, possesses kinetic energy as a result of potential energy. Other important forms of energy are those of electricity, light, heat and of chemistry — the energy stored in the chemical bonds between the atoms in molecules.

In principle, all forms of energy are convertible from one to another. This generalisation is expressed as the law of conservation of energy: energy can neither be created nor destroyed, only converted from one form to another. Thus no energy is ever lost or destroyed, although some of it often appears in a form we do not want and cannot use. The heat of a light bulb, for instance, is an unwanted by-product of the inefficient conversion of electrical energy to light energy.

Since in principle every form of energy can be converted into every other, we need only one unit by which to measure energy. In practice, however, different measuring units have evolved alongside the recognition of different types of energy, owing to ignorance of the fact that all forms of energy are fundamentally the same. Thus we have a foot-pound (energy required to lift one pound of mass the height of one foot) as the unit of potential energy, the calorie as the unit of heat energy, and the kilowatt-hour as the unit of electrical energy.

Chemists scarcely ever consider nuclear energy as being within the province of chemistry, because the energy of nuclear reactions is so many orders of magnitude greater than the energy of ordinary chemical reactions. The occurrence of a nuclear reaction disrupts, as a matter of course, all the chemical bonds in the vicinity of the atom undergoing nuclear reaction. Nuclear reactions always possess energies which are far too large (and heat content is sometimes an energy which is too small) to be significant in chemical calculations. However, the fact that chemists have no use for nuclear energy does not make it either non-existent or irrelevant.

In all these various forms we have described above, energy constitutes a physical reality. But what force or factor causes physical energy originally, and goes on to manifest it in its numerous forms? What is its origin? The answers to these questions would enable us to understand how this

and is finally buried, cremated or otherwise disposed of. Ultimately it mingles with ashes and dust. If the Prana had not abandoned that body, the person would not have died; so the exit of Prana is death. In material objects, injecting Prana or augmenting it changes their form. To give an example, when gold is heated in fire the solidifying Prana abandons it and the metal melts. When it is cooled, the gold solidifies once more, because a Prana having the property of solidifying matter has been injected into it from space.

Fourthly, every Wak possesses a centre. All material objects are held together around a central point. If this were not so, the matter of which the object is made would disintegrate and scatter. If one can locate the centre and manipulate it, one can manipulate the whole object. Of the three supraphysical aspects discussed here, Wak invests an object with volume, space and form. It makes the 'body'. Wak therefore must have a centre without which the 'body' cannot be held together.

Its fifth quality is that of form. Wak occupies space, possesses limbs and has some amplitude, length and breadth.

Its sixth characteristic is that it is limited by direction, space and time.

Its seventh quality is that every Wak has distinguishing features, which single it out as different from another Wak.

For the sake of clarity, we have discussed the attributes of Mana, Prana and Wak separately here. However, it should be noted that none of these three supraphysical energies exists without the other two. Where Wak is present, Prana and Mana will always be there too. Each of these supraphysical energies has three interconnected facets: Jnana (awareness), *Kriya* (motion or activity), and Artha (matter or substance).

There can be no awareness without activity of the mind; and in the activity of the mind there must be a subject.

This subject is the 'substance' part of the three components. Take a simple example of the movement of my finger. The action of movement of this digit is related to my desire to move it. The desire is the Jnana facet, the activity is the Kriya facet and the finger as the locus of the activity is the 'substance' or Artha facet. Similarly, when a potter makes a pot, (s)he or she makes it according to his or her desire, and this desire is the Jnana component, the knowledge or awareness of the potter in making the pot. The potter's hands are the activity or Kriya component, while the clay is the 'substance' or Artha component.

PRAJAPATI

As stated above, Prana, Mana and Wak do not exist in isolation from each other, and these three in combination are the cause of creation. That one Atma, of which these three are the 'limbs', is known as Prajapati. It is forever engaged in the process by which creation takes place, a process called *Yajnya*. This technical term, *Yajnya*, encompasses the entire workings of the process of the universe coming into existence.

As with other terms and formulations in the Vedas, *Yajnya* has been misinterpreted as worship, devotion, prayer, praise, offering, sacrifice or oblation. In reality, *Yajnya* is the process of refinement and interpenetration of supraphysical energies which cause the creation of an object. According to the *Vedas*, all that exists is born from this *Yajnya*, and creation is a product of that process. As we observe the universe, we see the *Yajnya* of Atma taking place before our eyes. In the ensuing chapters we shall examine these critical terms, Prajapati and *Yajnya*, in order to provide our readers with a more complete picture of the creation of our universe and all that inhabits it.

- 1 To be explored in a subsequent volume of this work.
- 2 We use the term 'Sanskrit' for modern Sanskrit as well as Vedic Sanskrit, which has some special and additional features.
- 3 We have devoted two chapters to a discussion of the unique characteristic features of this language, which evolve from the underlying philosophy of language. See chapters "Word and Meaning: The Importance of Grammar in the Study of the *Vedas*" and "Language and the Seer-scientists of the *Vedas*".
- 4 The *Prashna Upanishad* consists of seer-scientist Pippalada's answers to six questions posed by six brilliant and learned students. The word 'Prashna' means 'question'; in the title of this, one of the rarest among the once-lost texts of the Vedic corpus, the questions pertain to some major cosmological issues.
- 5 *Kaivalya Upanishad* 1:1-2.
- 6 *Tatteriya Brahmana* 2:8:9/6-7.
- 7 Bertrand Russell, *The ABC of Relativity*, p. 9.
- 8 Monier, Monier-Williams, Sir, *A Sanskrit-English Dictionary*, p. 705.
- 9 *Encyclopedia Britannica*, CD-ROM edition.
- 10 *Rishati gachhati idamichhantah shramen tapa arishan tasmad rishayah* — *Shatapatha Brahmana* 1:6:1:1:1.
- 11 *Brahma akshar, Vishnu akshar, Indra akshar, Agni akshar and Soma akshar*.
- 12 Sanskrit scholars, including scholars of the philosophy of the *Vedas*, have used the word 'Brahman' (with an 'n' added at the end) to distinguish it from 'Brahma', one of the trinity of Brahma (the creator), Vishnu (the sustainer) and Mahesh (the destroyer), worshipped by Hindus. We retain Brahma in its original form because there is an underlying connection between what is described as Brahma, the worshipped, and Brahman, the supraphysical force. This will become clear later in the book when we study the meaning of the entities which are understood as deities.
- 13 *Guhyat Brahma tadidam vadami, nahi manushat shresthataram hi kinchit* — Maharshi Veda Vyasa.
- 14 For a brief explanation of the Mahabhootas, please see the chapter entitled "Definitions, Concepts and Metaphors".
- 15 There is a technical term in the *Vedas* for each type of Prana: *Paroraja, Agneya, Somya* and *Apya*.
- 16 Some readers may ask: if Mana, as mind, stops during sleep, what about the activities of 'consciousness' during dreams? For a brief examination of the waking, dream and deep sleep states, see the chapter "Definitions, Concepts and Metaphors".



*na sada seenno sadaseet tadaneem
naseed rajo no vyoma para yat
kimawareevah kuha kasya sharmannambhah
kim aseid gahanam gabhheram*

*na mrityur aseid amritam na tarhi
naratrya aham aseet praketaḥ
aneedwatam swadhaya tadekam
tasmaddhanyatra parah kim chanasa*

Then neither Being nor Not-being was,
Nor atmosphere, nor firmament, nor what is beyond.
What did it encompass? Where? In whose care did
the waters and the unfathomable deep exist?

Neither death nor immortality was there then,
No sign of night or day.
That one breathed, windless, by its own energy
Nought else existed then.

RIK VEDA 10:129:1-3



CHAPTER THREE

Prajapati: The First Individual

The Beginning of the Process of the Cosmos



IN SANSKRIT, SOMETHING THAT CAN BE DEFINED IS known as *Padartha*, and for this we shall use the term 'individual', 'entity' or 'object'. In English, the word 'individual' conveys something which is alive, a single human being as distinct from a group; the word 'object' generally describes a material thing which can be seen or touched, and which is inert; and the word 'entity' is generally used for something which has a distinct existence, either 'individual' or 'collective'. In the context of this work, 'individual' has no parts in the strictest sense of the term, and is not a sum of any other 'individuals'. It is different from an object in this respect, since an object is an aggregate of several entities.

The first 'individual' in the process of all creation — including the coming into being of the cosmos — is Prajapati. Prana, Mana and Wak¹ abide in Prajapati. Each of these three components of Prajapati has two aspects: a centre and a field radiating from that centre. When we look at a flame in a lamp, we can discern two aspects: the brilliant orange colour portion and the light surrounding that portion. These two aspects are related to each other in the same way as a magnet and its field. As an example to help us understand this, we can visualise the domain of light radiating from a centre, which is the light bulb. The centre is called *Uktha*, and the domain in which the light is radiated is called *Mahima*. We discern these two dimensions of *Uktha* and *Mahima* in the three Atmas of Mana, Prana and Wak.

Objects as individuals can be grouped into four categories. Objects that are self-illuminated, such as the sun and fire, fall into the first category. These objects send out light, and do not draw their illuminating potential from any other 'individual'. The second category consists of objects which are illuminated by virtue of the reflected glory of some other 'individual'; in other words, the source of their illumination lies elsewhere, like the moon shining in the illumination provided by the sun. Mirrors are also in this category. Thirdly, there is a group of individual objects which are illuminated according to their form or appearance, such as a jar, a table, and so forth. The last category consists of objects which are not illuminated at all, such as air, sound and Prana.

Self-illuminating objects can be seen clearly from all sides, whereas objects which have reflected illumination are only half-visible at any one time. We must assume that even an 'individual' which does not illumine also has a 'body' and a field of radiation. 'Individuals' whose forms are illuminated are visible to us only when our eyesight is directed within the field of their illumination. When we look at an object, some 'part' of that object travels to our eyes. This 'part' is the lustre of that individual, which may be likened to the fragrance of a flower extending over a long distance. This aspect of the 'individual' is what is known as Mahima, and it resides around the centre, or Uktha, of the object. The existence of a specific Prajapati is noticeable according to the extent of its Mahima.

The interaction of Mana, Prana and Wak takes place in such a way as to give rise to a new entity. Thus the process of creation continues. Generally, the creation of new entities takes place in one of two ways: in the first process, two individuals or objects blend in a manner which causes them to destroy each other and the original objects to disappear.

An entirely new product is created, in which neither of the two earlier portions is identifiable. For example, a strong current of air generates bubbles in water. When this small quantity of air enters the water and bubbles are created, a kind of battle ensues. The air, as if imprisoned in the confines of the water, struggles to free itself; while the water struggles to keep the air confined within its embrace. Over time the two elements become exhausted, and both the water and air dissipate, giving rise to a third entity — froth, or foam.

In the second process, two objects, products or entities are blended in such a manner that their separate identities are not destroyed. This is like water being mixed with sugar to make sherbet. The identity of the two ingredients remains distinct. The first example given above, of the water and air creating bubbles and then foam, is the process of making a compound, while our second example indicates the process of making a mixture.

Prajapati is the first supraphysical 'individual' to evolve from the three realities, or supraphysical forces, of Mana, Prana and Wak. As a result, it is never seen without these three. Every individual in this universe, from the very largest to the tiniest, is a Prajapati, and innumerable Prajapatis together constitute a universe.

Another name for Prajapati is *Om (Aum)*.² This is the primordial sound, which arises from the calm and still ocean of unqualified silence as the process of creation begins. It contains a very small 'part' which is sound. Human ears 'catch' an infinitesimal sound and use it to distinguish one letter of the alphabet from another. It gives identity to syllables and grows to become language. This is the Wak portion of the triad.

Then there is the sound of speech, produced by the passage of breath through the mouth and modified by the

vocal cords into voice. Altering the position of our mouth and lips to make different sounds enables us to modulate our voice, raising or lowering it. This is the Prana portion of the triad. The third or Mana portion of the triad vests this sound with the power to steer our minds towards the meaning it seeks to convey or the object it signifies.

All these three components of the triad are present in every word. Undoubtedly, therefore, each word — which is an individual in itself — can be called Prajapati. Because the symbol Om shares several attributes with Prajapati, it is particularly designated as a Prajapati.³

As we observe our universe, it appears to be an accumulation of variety and diversity. However, it arises from one source. That one 'substance', so to speak, which is converted into these numerous appearances and forms is Brahma. From the seed emerge the stem, the stalk, the branches, the twigs, leaves, flowers and fruits. Similarly, from Brahma(n)⁴ has arisen this variegated diversity which we call the universe. Prajapati is Brahma(n), perceptible in the two states of manifest and unmanifest.

The manifest is ever-changing, even while it rests upon an unchanging factor, so that every object in the universe combines elements of continuity as well as change.⁵ Against this backdrop of continuity, an unceasing process of change continues. Prajapati, Mana, Prana and Wak are present in the unmanifest in an unobtrusive manner. Segments of Mana, Prana and Wak — which become discernible in the manifest state — are not present in the state of indivisibility described as 'unmanifest'. From this unmanifest state emerges the manifest, in which we apportion Mana, Prana and Wak.

The manifest is that which can be defined in terms of direction, space, time, numbers and so on. That which cannot be so defined is unmanifest. Thus, in the unmanifest

state Prajapati cannot be accorded limits nor be circumscribed by direction, confined in space nor limited by time. Since all individuals in the universe have limits and can be numbered, they are all manifest Prajapati. But they all evolve from an unmanifest factor of Prajapati, and in them the Mana-Prana-Wak triad acquires three aspects: a centre, a form and a field. These three facets of every Prajapati are named *Nabhi*, *Moorti* and *Mahima* respectively.

Every object survives around a centre.⁶ The second facet of an object is its appearance; it 'resides' within its form, which has a delineating outline. The third aspect of an object is a 'field' which radiates from it. (In modern physics, the 'field' is the area over which objects are visible.)⁷ *Nabhi*, the centre, is controlled by *Mana*. *Wak* exerts influence over the form, or *Moorti*; and *Prana* rules *Mahima*, the resplendent field of an object.

Although the convergence of these three facets creates only one Prajapati, for functional purposes these are called three Prajapatis, known by the three names of *Nabhya*, *Vyakrit* and *Sarva*. *Nabhya* is the centre, the first facet, which combines with *Moorti* to become *Vyakrit*. The combination of the centre of an object and its form makes *Vyakrit*, which is the principal Prajapati because it is that which we see clearly with our eyes. All individuals that we see are *Vyakrit*, or forms. The supraphysical 'energy' which resides in the centre of that form is a part of the unmanifest Prajapati. The *Vedas* say that this Prajapati is 'indescribable' because it is unmanifest. But the powers of *Sarva Prajapati* emanate from the centre and perform their respective functions so that the entire weight of that individual rests on one point, the centre of the object. Various 'rays' radiate out on all sides from the form of Prajapati, the technical name for these being *Gau*.

As mentioned earlier, Prajapati has only the three

components of Mana, Prana and Wak, which surface at the beginning of the universe, and these three ingredients of Prajapati are imperishable. Some seer-scientists hold the view that Prajapati only exists in Mana, in which form it is indestructible and quiescent like the sky. When volition, an impulse or urge arises in it, Prana is generated in varying measures. There are occasions when Prana spawns in great magnitude. When people work, for example, they apply lesser or greater force in accordance with their will. This force is not manifest, but its consequences are. In all probability, the supraphysical energy which we now perceive in the form of the universe was once unmanifest. At that time, Prajapati would have been absolutely still and calm, and Mana would also have been totally at rest.

THE FIRST PRAJAPATI

That first Prajapati has evolved into this vast universe. Its unlimited and endless nature is a result of the fact that Mana, Prana and Wak have no separate existence from the main 'part' of Prajapati. Divisions arise with the surfacing of Mana, Prana and Wak in what was previously without limits or end. All other Prajapatis originate from that first Prajapati, and every single Prajapati 'born' after the first Prajapati is the source of origination of numerous other Prajapatis. This process continues *ad infinitum* and our vast universe, itself an aggregation of innumerable Prajapatis, is also a Prajapati.

At one pole of the vast spectrum of innumerable Prajapatis is *Parmeshwara*, that which has no frontiers, end or limits. At the opposite pole are tiny Prajapatis, innumerable ones which go to make up *Parmeshwara*. These tiny Prajapatis are called *Jeevas*. In between Jeeva and *Parmeshwara* is *Ishwara* which, although vast, is relatively small in comparison with *Parmeshwara*.⁸

RASA, BALA AND ABHWA

Now we shall introduce the three important 'individuals' of Rasa, Bala and Abhwa, which are members of the Mana-Prana-Wak triad. In its primordial form, Mana is Rasa, while the pristine form of Prana is Bala, and that of Wak is Abhwa. Some seer-scientists hold the view that these three emerge sequentially.

Rasa is also known as *Ananda*, a term which philosophers translate as 'abiding joy'. Total peace and unhindered prosperity, achievement and progress give rise to Ananda. In the terminology of Vijnana (Vedic science), Ananda stands for the state in which the entire universe is utter stillness; no stirrings or activity are noticeable in this ocean of total tranquillity. Thus, that which is completely still and utterly calm, and in which there is no stir nor activity, is known as Ananda. No Prana has emerged in this state and Mana, being of the experience of utter bliss, is called Rasa at this point. From that Rasa, Bala evolves.

Just as we tend to feel happy when we gain something, so Ananda comes into being in the supraphysical universe when there is some gain or accretion in Atma. However, that happiness (Ananda) is short-lived and momentary. Atma augments and enlarges and there are stirrings, but very soon it shrivels back to its earlier form. In other words, after a phase of joy, calm returns. When there is no provocation or disturbance in Atma, it remains in a peaceful, quiet and blissful state. This is one form of Ananda, or unalloyed joy. When we wake from a deep and undisturbed sleep, the memory of it evokes a feeling of immense happiness. This is another experience of Ananda. Of the two, the former is the principal manifestation of abiding joy.

Ananda exists at the beginning of creation, when no Prana has emerged in Mana. Then there are stirrings, and

out of that Rasa is born Bala, the next state of supraphysical energy. Bala is discernible in every object in different intensities of power and strength, and is visible in the universe in innumerable forms. It has still not been determined how many types of Bala there are. From the collision of these Balas a new state of supraphysical energy emerges, known as Abhwa. Just as oil comes out of oilseeds, or as butter comes from curd, so does the latent Bala emerge from Rasa. To put it another way, when Balas merge or clash with each other, a new 'individual' arises, and this is Abhwa.

Bala, Rasa and Abhwa are eternal and autonomous supraphysical forces with the same place of origin. Abhwa is born from Bala, and all Balas spring from Rasa. Rasa is not like air, which is continuously on the move. On the contrary, it remains stationary and no modifications or changes occur in it. It is a platform for the operation of Prana and Wak. It is limitless and endless, infinitesimally fine and subtle as space (*Akasha*).⁹

Space exists inside as well as outside an individual object. While sitting in a room, we can be aware of space inside that room as well as the room itself existing in space. No solid object, however dense, can obstruct space, and space exists even in the tiniest of particles and atoms. When salt or sugar are mixed with water, they assume a liquid form. Sugar particles mix with water molecules, yet each of these particles or drops of water also has space inside it. Just as there is space in every object and every object is in space, there is Rasa in every Prana and Wak, and Prana and Wak exist in Rasa. Mana (or Rasa) is fine and subtle, so that no solid object can obstruct it with its density. This is why Rasa (or Mana) is likened to space and given the name *Akasha*.

Like space, Rasa (or Mana) is utterly quiet and still. To have activity, or to stir, is not its attribute or Dharma. Rasa

(or Mana) is not circumscribed by direction, space, time or numbers. There is no diminution in it when Bala is born out of it. It may seem astonishing that the highly restless Bala springs from the totally quiescent and calm Rasa, and ultimately dissolves back into the same Rasa. Just how this occurs is not easily grasped. It can be fathomed by experience only, and the insight into its nature comes with the suddenness of a flash, as the seeker continues his or her exploration.

Although Rasa is limitless and unending, the Bala emerging from it is of varying sizes, and none is infinite. At one end of the spectrum Bala is so big that the operations of an entire universe are conducted by it. At the other extreme it is so minute and fine that the smallest atoms, which cannot be seen, are also Bala in microform.

No Bala exists without the support of Rasa. Therefore, since Bala has a determinable magnitude, we assume the same about Rasa. Although it rests on the support given by Rasa, Bala is never visible. When two, three, four or more Balas converge, a new 'individual' is created out of this mutual friction and collision. This is Wak. The same Bala creates something new by its effect on Wak, and that new supraphysical entity is called Abhwa.

Unless an atom occupying a certain space is removed, another atom cannot take its place. But this is not so in the case of Bala. Thousands of Balas (which may or may not be mutually compatible) can converge on one point. Sometimes, their diverse identities are submerged into one indivisible 'entity'. The process of coming together of Balas takes place in several ways. The first supraphysical 'entity' formed by the association of these Balas is called Abhwa. When we look at an object, we should keep in mind that it is nothing but Rasa and the onslaught of thousands of Balas upon it. Objects appear to be different because of differences in the Balas which

converge to create those objects. But every object is an aggregation of Balas from Rasa.

So, while the sense of unity in an 'individual' exists because Rasa is its foundation, changes are observed in it. Objects are also found to differ from one another because of the variation in the number of Balas present in them. This variety makes up our universe and accounts for the dissimilarity in form, function and name of all the objects we witness in the universe.

On the basis of this understanding of what constitutes Prajapati, the cause of creation, we can now sequentially proceed to examine the vital components of creation — Atma, Jeeva, Ishwara and Parmeshwara — in somewhat more detail in the next chapter. This in turn will give us the necessary background and knowledge to move on to a consideration of Yajnya, the continuous process of renewal and dissolution of creation, by which we ourselves exist and which governs our entire, fathomless universe.

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- 1 See the section entitled "The Four Principal Actors of the Drama" in the preceding chapter for an explanation of Mana, Prana and Wak.
 - 2 Om is the most important symbol in Veda. It expresses the entire process of creation, the three states of human consciousness and the rise of the cosmos from the primal sound 'A'. Om is the most important medium of meditation and of harnessing the untapped potential of human beings. See the chapter "Definitions, Concepts and Metaphors" for more details of this primordial sound.
 - 3 For further elaboration of this theme, see the monograph entitled *The Meaning of Upasana* by the author (publication in progress).
 - 4 Please refer to the chapter entitled "Definitions, Concepts and Metaphors" for an explanation of Brahma and Brahma(n).
 - 5 See the chapter "Methods of Analysis".
 - 6 See our chapter "Jeeva, Ishwara and Parmeshwara".
 - 7 The field also signifies "a region in which the forces being considered are appreciable." In electricity, the field (more properly called the 'vector field') is the region of space in which the phenomenon

characterising the field eg. electric, magnetic or gravitational energy, is represented by a vector. (*Chambers Technical Dictionary*) Mahima signifies a field in which supraphysical forces radiate from an object. This has practical implications in several disciplines.

- 8 See the chapter "Jeeva, Ishwara and Parmeshwara".
- 9 Akasha is one of the five gross elements (Mahabhootas) which are the primal factors of creation. Generally translated as 'sky', it is used here in the sense of 'space'. See the chapter "Definitions, Concepts and Metaphors".



*/ ishwarah sarva bhootanam hriddeshe, arjuna, tishthati
bhramayan sarva bhootani yantrarodhani mayaya*

Ishwara resides, O Arjuna, at the centre of all beings,
and they turn and spin by his uncanny power.
like puppets fixed on a machine.

BHAGAVAD GEETA 18:61



CHAPTER FOUR

Jeeva, Ishwara and Parmeshwara

Exploring the Relativity of a Supraphysical Entity



IN THE CHAPTER “BEGINNING THE JOURNEY”, WE introduced Atma, that which is all-pervasive. We have also used the terms ‘Atma’ and ‘universe’ separately, giving rise to the question as to whether the two are distinct entities or the same. Students of the *Vedas* often find that the one term points to different things in different contexts. It is said that this causes confusion about what the particular word means. This confusion would not occur if we kept in mind the ‘factor’ or Tattwa which a specific term is employed to communicate.

We frequently come across such examples in common parlance. For instance, the word ‘centre’ has a wide variety of meanings depending on its context. It can stand for the middle point of anything, especially a circle or sphere. It is “a fixed point of reference, the point towards which all things move or are drawn, a nucleus, the chief leader of an organisation, a player in a central position, a man of moderate political opinions”.¹ A circle drawn on a piece of paper has a centre; a huge football field has a centre; a government or a corporation has a centre; the earth has a centre.

These are examples from fairly common usage, and there are many more meanings of the word ‘centre’ in modern scientific and technical literature. In civil engineering, for instance, a centre is a timber frame built as a temporary support during the construction of an arch or a dome. For surveyors it means “to set up a surveying

instrument vertically above a station point.”² The centre of a lens is a point on the principal axis of a lens through which rays with parallel incident and emergent directions pass. In meteorology, the centre of action is a position occupied, more or less permanently, by an anticyclone or a depression that largely determines the weather conditions over a large area. The centre of gravity is that point in a body at which its weight may be taken to act, and at which the body may be supported in neutral equilibrium. The centre of a mass is that point in a body through which the resultant resisting force acts due to the body’s inertia when it is accelerated. We could supply many other examples. Thus we find that the word ‘centre’ indicates the location of a point in a specific context. There is an underlying continuity in the meaning of this word, although the specific meaning evolves from the change in the context.

Let us now return to Atma, a supraphysical entity we met early in our exploration of the great cosmic drama. Since Atma and *Vishwa* (the universe) are at times described separately, this suggests that there is something else in addition to and distinct from Atma, something that is not Atma. Let us call it *Anatma* (non-Atma).³

Like the word ‘centre’, the word ‘Atma’ is also relative. But relative to what? Let us find the answer and develop a deeper acquaintance with this fascinating entity, because herein lies the key to the understanding of the knowledge contained in the *Veda Mantras*.

We have already noted that Atma comprises Mana, Prana and Wak, and that these factors operate at numerous levels. A body is made up of the five fundamental gross elements (Mahabhootas) of *Prithwi* (earth), *Jala* (water), *Teja* (sun), *Wayu* (air) and *Akasha* (space). The body comprises the outermost manifestation of these gross elements. In Atma,

the three-dimensional Mana-Prana-Wak arrangement as the external facet or 'body' is Wak. In the first instance, we observe the material shell; but a body is not merely the matter of which it is composed, ie. blood, bones, flesh, marrow and so on. A body is a body and not a corpse because it has life.

Life in a body is discernible in its movements, all of which can be attributed to Prana. No part of the body lacks Prana, which in turn causes motion and generates activity in the body. Within that pervasive Prana is Mana, an attribute of Akasha. (We become aware of it as 'mind' because this is the facet in which Mana is reflected in the body-mind-intellect triad.) For example, it is because of Mana that the experience of pain arises as soon as a thorn penetrates a part of our body. The message of pain emanates like a flash of 'light' radiating from Mana. This 'light' of Mana is the base from which Prana operates. As soon as the message of pain is received, Prana acts, with a view to escaping from the cause of pain. It does this under instruction from Mana, and it removes Wak — the physical location where the thorn has pierced the body — from contact with the cause of pain. Mana, Prana and Wak continue to operate within the body, like three streams flowing concurrently and continuously. These are the three aspects in which the constituents of the triad become manifest: awareness or knowledge (Jnana); effort or motion (Kriya); and the physical or material exterior (Artha).

These three aspects are discernible in every entity. For instance, our eye-socket and eyelid are the physical or material part of the entity called 'eye'; they constitute the Wak portion or the Artha stream. However, by themselves they are not the complete 'eye'. The movement of the eye, which makes it possible for us to see an object, is the Prana component of the triad. It is the Kriya stream. After we have seen an object, messages are transmitted, communicating

what we have seen. The awareness or knowledge produced by seeing an object is the Jnana stream, and is the Mana aspect of the triad. Every 'body' and each of its various organs has these three facets. These three streams, as stated earlier, flow concurrently.

All other 'inputs' which go into the making of the matter of which our bodies are composed also have these three facets. For example, the substance(s) that make blood indicate the Artha stream and comprise the Wak aspect of the triad. The blood circulates in our body and this movement is Prana. When our sense organs interface with blood — when we see or touch it — we become aware of it and this awareness or knowledge is the Mana part of the triad.

Just like a body, the entire universe consisting of innumerable worlds exists because of the Mana-Prana-Wak triad. One could say that these three make Atma, which appears in the form of this triad. It is appropriate, therefore, to suggest that the entire universe is permeated with Atma. It has been explained earlier that the Uktha of an entity comprises its Atma, being the centre that holds the entity. This is also known as the Brahma or Sama of that entity, and is the point on which the entire existence of the entity perches precariously. But as we stated earlier in this chapter, Atma is relative to Anatma — that which is not Atma. If Atma is perceived as the 'soul', Anatma is the 'body' in which that soul resides. To clarify the relativity of the Atma and the different levels at which we need to comprehend it in relation to Anatma, let me begin with myself as an example.

When you look at me, you observe my body. This 'body' is the centre of all my activities and relationships and in this sense it, and all that goes with it, is the Uktha, Brahma and Sama of all that I do in this world. Thus, the body which you observe is Atma in relation to all the activities taking

place around it. At this level my person is the Atma or the centre and in the context of this centre all those who relate to it or are dependent on this person, me, constitute Anatma. When we describe a person as the 'life and soul' of a party, that person becomes the Atma and the party is the Anatma, the 'body' of that 'soul'.

If we now move to another, deeper level, we can look at the body in isolation from its surroundings and relationships. When we do so, we notice that the body is merely an external shell, possessing its own Uktha. This is the factor — also called Brahma or Sama — which keeps the body 'ticking over'. It is the 'centre' on which the body hangs. In relation to the body, that Uktha, Brahma or Sama is the Atma. It is this Atma which we met and explored in the chapter entitled "Beginning the Journey". Relative to this Atma, the body is Anatma. From this point we are able to go still deeper and explore Atma at other levels.

Since Mana and Prana control all the changes (*Vika*) and modifications that occur in an entity, the aggregate of Mana and Prana is Atma within the universe of this Mana-Prana-Wak triad. In relation to this aggregate, the Wak is Anatma. Let us proceed further. Of the two facets of Mana and Prana, which together were Atma in relation to Wak, we find that Prana is always under the control of Mana. It arises from Mana, is regulated by Mana and is finally subsumed in Mana. In relation to Prana, therefore, Mana is Atma. At this level, Prana and Wak (with all its changing forms) comprise the 'body' and are Anatma, and Mana is the Atma.

Looking deeper, Mana, Prana and Wak are controlled by some other 'factor', which has no name or form and remains unmanifest. This factor is not subject to this three-dimensional configuration. This indivisible and indescribable entity is the principal Atma, and everything else is its 'body'

Since it is without name or form and has no 'practical' application, for the purposes of day-to-day usage it is not called Atma. However, from the point of view of the seer-scientists, it alone is Atma. According to the seer-scientists, this 'indescribable' Atma has eight 'characteristics':

1. There are no mutations in it;
2. It does not age;
3. It does not expire, disappear or die;
4. It does not suffer from anguish or remorse;
5. It does not feel hungry;
6. It does not feel thirsty;
7. Its 'urges' are authentic and true; and
8. Its resolutions (*Sankalpa*) are unchangeable.

Thus, this Atma is the changeless, immortal, indivisible and ageless Tattwa. It should be noted, however, that the term 'Atma' is used in daily parlance only for the sake of convenience and to facilitate understanding of the practical applications of supraphysical energies and factors. For example, the flame in a lamp is the Atma, as the principal component. However, we normally understand 'lamp' to comprise the light bulb, the filament inside, the stand and so on. In reality, the glow of light is the essential component and everything else acquires the name 'lamp' only when light is present. Similarly, the changeless, eternal factor is Atma, and when this factor is present in an entity all the components of Mana, Prana, Wak, body and so forth come to be called 'Atma'

We should always bear in mind that these are secondary Atmas, which are so described only for the sake of convenience. They do not possess the eight traits of Atma as defined above. These Tattwas (the secondary Atmas) are all perishable. They are subject to modification and change,

to birth and death. However, as we move in our exploration from level to level, they are honoured with the appellation of 'Atma'. In relation to the other external attributes, the body acquires that eminent appellation, while in relation to the body, the Mana-Prana-Wak triad acquires that name. And in relation to this triad, Mana is given the honour of being called Atma. This is so because, as each stage moves closer to Atma, it acquires the above-mentioned qualities of Atma in an increasing measure.

In the preceding paragraphs, the two classifications of Atma and Anatma have been explained in relation to the body. A similar classification is applicable in relation to the universe. The universe consists of diversity and plurality; the diversity is caused by changes in the form, and the plurality by changes in appearances. All changes are caused by modifications in Wak. In other words, changes in the forms of Wak make the universe. In this case also, the principle that the Mana-Prana-Wak triad comprises the Atma is applicable. Modifications in Wak are no different from Wak itself. The universe is these variations and modifications in Wak. As already stated, Wak is part of Atma and, therefore, this variegated universe can also be called Atma.

THE ATMA-UNIVERSE RELATIONSHIP

Six types of relationship are discernible between the universe and Atma:

1. The universe is in Atma;
2. Atma is in the universe; and
3. Atma is the universe.

When Wak is considered as Atma, and the altered forms of Wak are not treated as Atma (since these are only variations), a fourth relationship emerges:

4. Atma and the universe are different.

If variations and modifications are not classified separately, a fifth relationship emerges:

5. The universe is no different from Atma.

In other words, Atma is different from the universe, but the universe is no different from Atma, rather like the relationship between heat and fire. Heat is in fire, but fire is not in heat. This can also be visualised through the relationship between the lamp and the light: there is light in the lamp, but the lamp is not present in the light.

This brings us to the sixth state of the Atma-universe relationship, which several philosophers have named the 'indescribable' state. Some of these philosophers have held that the universe is an illusion as a result of the conclusion they reached about this indescribability.

To sum up, we notice six aspects in the relationship between the universe and Atma, and six schools of Indian philosophy have elaborated on each of these in great detail.

MODIFICATIONS IN WAK

Wak changes its form in various states. Firstly, it becomes manifest in the form of the primal 'elements' (Mahabhootas). Later, the Paramanus or nuclei of the five fundamental gross elements — Prithwi, Teja, Jala, Wayu and Akasha — are formed, and these subsequently take on the form of material 'bodies'. This modification only takes place in half of Wak and not in the whole of it. The remaining half does not take on any form. After it has been formed in water, foam covers that part of the water which has not taken on the form of foam. Similarly, the segment of Wak which takes on a form of Wak wraps within itself the formless portion of Wak.

Wak⁴ also means 'sound'. With the exception of Akasha (space), every other primal element produces sound, either when two or more primal elements join or when they are

divided. Sound has no motion in itself. It rides the air-waves (Wayu) and is dissolved in Akasha.

The physical and material universe resides in the Wak form of Atma. As we discussed before, all variations and modifications arise from Wak and are, in fact, Wak. When the process of dissolution of creation takes place, all material objects are reduced to the five fundamental factors and ultimately become Wak. These material objects are mere modifications of Wak. Just as bangles, rings and necklaces are modifications of a piece of gold and are in fact nothing other than gold, in the same way Wak merely changes its state and assumes varying forms without ceasing to be Wak. Likewise, this vast universe is nothing but Atma, a fact which the seer-scientists have articulated in several formulations, expressed in many Mantras throughout the Vedic texts.

Of the innumerable arrangements in which the Mana-Prana-Wak triad is organised — or the innumerable variations in which Atma manifests itself — three arrangements (*Vyuha*) are the most significant. These are known as *Anuvyuha*, or 'meta-arrangements'.

The aggregate of thousands of *Vyuh*as of Prajapati form one meta-arrangement called Jeeva. Thousands of Jeeva-aggregates are metamorphosed as Ishwara. Innumerable Ishwara-aggregates form a Parmeshwara. Since Parmeshwara is one and only one, no fourth arrangement (*Vyuha*) emerges.

At the level of its own *Vyuha* (aggregation of supraphysical factors), Atma is vested with its Mana-Prana-Wak triad. It should be noted that the Mana-Prana-Wak triad of Jeeva is different from that of Atma, that Ishwara's Mana-Prana-Wak triad is different from that of Jeeva, and that the triad of Parmeshwara is different again from that of Ishwara. These are like overlapping concentric circles, a vast and

limitless sphere encompassing the entire universe. The process of creation begins with the first or original circle, which is without frontiers. In due course it begins to delineate itself and another circle emerges. This circle is somewhat circumscribed, but still has a vast boundary. As the process continues, the circles become smaller.

Let us consider three major circles, representing three Atmas. From these three Atmas — the first limitless, the second with a vast frontier, and the third with a reduced and relatively smaller boundary — three orders of creation take place, each of which resides within its own Atma. Wak resides in seed-form, as the material cause of creation, in all these three orders of creation and their Atmas. Prana is the incidental cause, and Mana is the direct cause or creator. In the making of a pot, the clay is the material cause, the mould is the incidental cause and the potter is the creator. Spurred on by the urge of Mana, and with the aid and support of Prana, Wak assumes various forms. This is the basic principle of creation, and those who understand this 'secret' attain real knowledge. The seer-scientists unravelled this mystery and presented humankind with a profound knowledge of this process.

Although Mana, Prana and Wak are present in Parmeshwara, Ishwara and Jeeva, the quantity varies; the maximum 'amount' is found in Parmeshwara, relatively less in Ishwara and least of all in Jeeva. This is the doctrine of Triple Reality.

The body is the form which Jeeva wears, the framework through which it operates, the stage of its theatre. In the case of Ishwara, the entire universe (*Brahmanda*)⁵ is the framework of its operation, the laboratory of its experiments, the stage for its grand theatrical performance. This universe is the playground of Ishwara's numerous sports.

Jeeva has three types of Prana: *Vaishwanara*, *Taijas* and *Prajnya*. *Vaishwanara* protects and sustains the body. With every passing moment, in accordance with the laws of nature, the body expends its energy and becomes depleted. *Vaishwanara* recompenses this loss, replenishes the depleted energy and maintains the body. It does this by separating the juices of food and other intakes from the waste products. The second Prana, *Taijas*, circulates the nourishing juices within the body and flushes out the waste. This Prana facilitates the growth of the child into the adult and later transforms youth into old age. The third Prana, *Prajnya*, generates consciousness. It is the supraphysical energy which propels the sense organs. It transmits the knowledge of an external object to the brain and helps retain knowledge. Numerous branches of knowledge have evolved from *Prajnya Prana*.

Vaishwanara, *Taijas* and *Prajnya* connect the Atma of Jeeva with the Atma of Ishwara. The seer-scientists handed down several methods for stabilising the mind, of which *Upasana* is one of the most significant. In essence this means invoking, inviting and investing Parmeshwara's traits in one's own Atma. In the realm of *Upasana*, *Vaishwanara*, *Taijas* and *Prajnya* are given three different names: *Vaishwanara* becomes known as Vishnu, whose function is to sustain and protect. *Taijas* is called Brahma, whose function is to create; and *Prajnya* becomes known as *Shiva*, who causes peace and well-being.

The three Pranas in the Ishwara meta-arrangement are *Virat*, *Hiranygarbha* and *Sarvajnya*. *Virat* sustains the universe and replenishes the diminution that occurs in accordance with the laws of nature. *Hiranygarbha* circulates various objects created in the universe and maintains their orderly sequence, so that all the changes in the universe are caused by it. *Sarvajnya*, also known as *Antaryami*, is the force behind all the exertions, changes and movements in the universe.

We are aware of the efforts within us to actualise an impulse. But we are not aware of the similar exertions — from the first stirrings of a desire to its actualisation — which take place in someone else. However, based on our own experience we assume that processes similar to our own must be occurring in another person. In the same way, when we observe so many happenings in the universe, we should assume that these are the result of some urge(s) stirring somewhere. That concentrated consciousness is *Sarvajnya Atma*.

The solar world is *Dyau*, this planet of ours is *Prithwi* and the region inbetween is called *Antariksha*, the intermediate region. Together these constitute what is known as a triple world. This triple world floats in the magnificent field of which the sun is the centre. But there are numerous other triple worlds, and that around which thousands of such triple worlds float is *Ishwara*.⁶ We can visualise *Ishwara* as a magnificently lustrous sun, a concentrated consciousness like the centre of a powerhouse. From that centre, electricity travels in all directions, and thus *Ishwara* radiates the light of consciousness all around.

Parmeshwara is that in whose vast sky thousands of such *Ishwaras* float. *Jeeva* and *Ishwara* have limits or borders around their respective *Atmas*, whereas *Parmeshwara* has neither centre nor frontiers. *Parmeshwara* is beyond time and space and is limitless. Whatever takes place in this vast, unlimited universe occurs on the stage of *Parmeshwara*, so that in one sense *Parmeshwara* is the limitless platform, or a meta-structure, for the functioning of all objects in the universe. The totality of all that happens is *Parmeshwara*.

The consciousness, action and matter emanating from the *Atma* or *Mana-Prana-Wak* triad of *Parmeshwara* permeate everywhere. *Parmeshwara* is the treasure-house of these three

states of consciousness. When Jeeva ceases to exist, all its essence or Rasa dissolves into Ishwara, and Ishwara's Rasa is ultimately subsumed in Parmeshwara. The three Pranas in Parmeshwara are called *Agni*, *Wayu* and *Indra*, and in the final analysis these three permeate the universe and regulate it.

Each of the innumerable Jeevas, with its autonomous meta-structure, is bound within Ishwara, and on cessation each one dissolves into Ishwara. If we fill 1000 cups with water and place them on the ground, the sun will be reflected in each one of them. Each reflection has its autonomous existence, yet all of them are so closely tied to the sun that they would cease to exist if the sun was absent. This is described as the sun's 'grace'. By its grace, the sun lends to each reflection an autonomous existence, which emanates from its own existence. In other words, the reflections exist because the sun exists. Similarly, the existence of all Jeevas is due to the existence and grace of Ishwara. Innumerable Ishwaras exist within the ambit of Parmeshwara, deriving their existence from Parmeshwara. In this sense, both Jeeva and Ishwara are dependent upon Parmeshwara and exist by Parmeshwara's grace.

Although Jeeva is dependent upon Ishwara, every Jeeva is independent and autonomous in its arena as far as other Jeevas are concerned. Thus we find that Jeeva, Ishwara and Parmeshwara are concentric macro-arrangements, each possessing its own Atma, or Mana-Prana-Wak triad.

Level	Names of Atmas at each level of creation		
Jeeva	Vaishwanara	Taijas	Prajnya
Ishwara	Virat	Hiranyagarbha	Sarvajnya (Antaryami)
Parmeshwara	Agni	Wayu	Indra

These Atmas are differentiated because they relate to three different levels or orders: Jeeva, Ishwara and Parmeshwara. As the table above indicates, Agni, Virat and Vaishwanara are one category. In fact, these are names for the same supraphysical energy, Agni, which is predominantly Wak. It creates Artha, or substance, in all the three orders. Wayu, Hiranygarbha and Taijas are of the same category, which is predominantly Prana, and they give rise to motion in all the three orders. Indra, Sarvajnya (Antaryami) and Prajnya are of the same category, which is Mana, generating consciousness or knowledge in all the three orders.

There is an Ishwara above all Jeevas. The Atma of Jeeva emanates from Ishwara and the Atma of Ishwara from Parmeshwara. Their relationship is like the water, the bubble and the reflection. The bubble is 'dependent' upon the water and the reflection (in the bubble) is 'dependent' upon the bubble.

Now let us turn our attention to the most fascinating aspect of life in this cosmos, namely Yajnya, the continuous cycle of renewal and dissolution of the very process of creation. In the next chapter we shall see how life forms emerge, are sustained and ultimately dissolved back into Yajnya.

1 *Chambers Twentieth Century Dictionary*.

2 *Oxford Dictionary of Technical Words*.

3 The prefix *an* is used in Sanskrit in the sense that the Latin *non* is used in English.

4 When used for sound, it is written as *Wac-h* (the c-h pronounced as in 'chat').

5 Brahmanda means 'the egg-shaped universe'.

6 Supraphysical energy, at this stage, becomes a manifestation of bubbling life. The sun becomes the source of all life. Therefore we move from the neuter 'it' to the masculine form 'he'. But, as the chapter entitled "Pure Intelligence and Absolute Consciousness" explains, it is invoked in the feminine also. See our chapter by the name of "God, Gods and Goddesses", too.



*yo vidyat sootram vitatam yasmin netah praja imaha
sootram sootrasya yo vidyat sa vidyad brahamanam mahat*

The knower of reality is he
Who knows about the invisible thread
Running inside the visible thread.

ATHARVA VEDA 10:8:37

*ritasya hi shurudhah santi poorvi
ritasya dheeti vrijanani hanti
ritasya shloko badhiratatarda
karnam budhanah shuchaman ayoh*

Infinite are the powers of eternal laws;
Abiding by these ends all afflictions.
The contemplation of eternal existence
Dispels all sorrows.
Even an understanding of these laws is
Illuminating and purifying to living beings.
These eternal messages inspire even unheeding ears.

RIG VEDA 4:23:8



CHAPTER FIVE

Yajnya: Meaning and Significance



THE SUPRAPHYSICAL UNIVERSE COMPRISES VARIOUS basic Tattwas which we should visualise as the primary 'individuals' that serve as the initial building blocks. In addition to these primal elements, a continuous process of interaction, interpenetration and assimilation occurs in the universe of supraphysical energy.

In the physical universe, with which we are familiar, millions of reactions take place all the time. These processes occur inside our bodies and in the world of plants, animals and every other object; in fact, everywhere in nature. These reactions and interactions produce changes which are sometimes irreversible and sometimes not. On occasion, these interactions produce a new 'individual' which acquires an autonomous identity. Some of these 'individuals' have a life and momentum of their own, whereas the identity of others is not enduring. Similarly, the process of action and reaction in the supraphysical universe is continuous.

Agni is one of the principal supraphysical energies, with which other energies may be blended to produce an entirely new 'individual'. At other times, however, the process of fusion merely produces a transient by-product. This process of the acculturation of Agni is Yajnya, bringing about a refinement and embellishment of Agni.

We use the term 'acculturation' for the Sanskrit word *Sanskara*, although the Sanskrit word has multi-dimensional connotations. Sanskara means putting together, forming well, making perfect, accomplishment, embellishment,

adornment, purification, cleansing, making ready, preparation, dressing (of food), refining (of metal), polishing (of gems), rearing (of animals). It also means forming the mind, training, education, correction, making sacred, hallowing, consecration and regeneration.

In the context of supraphysical forces and energies, Sanskara signifies a process of interface and interaction of the same supraphysical energy in varying quantities. It also indicates the interaction of two or more different supraphysical forces, resulting in the refinement or embellishment of one of them, or the creation and evolution of a new supraphysical entity. Yajnya is the process which makes Sanskara possible.

THE FIVE FORMS OF YAJNYA

We discuss the phenomenon of Veda in some detail elsewhere. To understand its relevance in the context of the study of the process of Yajnya, let us also recall Prajapati, whose main function is to create. *Praja* is all that constitutes the universe, and Prajapati literally means 'master of all Praja'. Prajapati creates all created entities, and Praja is its creation. Veda is Prajapati's structure, and Prajapati endures because of the process of Yajnya.

Praja, Veda and Yajnya together convey to us the configuration of Prajapati, so that in understanding these three we understand the nature of Prajapati. We have noted earlier that Prajapati, the first 'individual', has three divisions or dimensions: Mana, Prana and Wak. Veda is related to Mana, Yajnya to Prana and Praja to Wak.

Prajapati has, as it were, three facets: a centre, a frame and an effulgence. We can consider any object in the light of this: there is a centre around which it is held together; it has a frame which we can distinguish; and it has effulgence

which makes it visible. Let us focus, for the time being, on the aspects of frame — the contours of the object — and the effulgence or lustre which radiates from it. Veda permeates both these two facets and is of three varieties: *Rik*, *Sama* and *Yaju*.¹ If we wish to study Prajapati closely, we can do so only by looking at Veda.

Of the three Vedas which perform Yajnya, Yaju initiates the process, Rik follows it, and Sama finally consummates the Yajnya. Thus, these three Vedas gather together to complete the Yajnya. These three Vedas are the area of origin and the field of operation of Yajnya, which is why Yajnya is also described as the 'womb of Veda'. The seer-scientists use the word 'womb' to indicate the field from which a process emerges and within which it remains confined. Veda has three components and, since it resides in the 'womb' of Yajnya, the latter also has three components. In other words, it is three-dimensional, a triad. All material objects evolve from these three Vedas.

The Vedas are *Satya*,² which alone is real and true. The Vedas are founded in Satya, and their dispersion takes place by Yajnya.

At the very outset, before anything else occurs in the entire process of creation, there is *Swayambhu Yajnya*. This vast universe, comprising all inert and sentient beings and objects, exists in the three Vedas of Swayambhu Yajnya. This particular Yajnya offers itself for consummation in Agni; in burning and exhausting itself, a process occurs by which new Rik, Yaju and Sama continuously arise. When new Vedas occur, a new Yajnya is created and that becomes a new 'entity'. A new 'substance' comes into being.

The sun, moon, earth and innumerable other orbs in the sky are the locations of different Yajnyas of different sets of the three Vedas. Each of these entities represents its own

specific set of three Vedas. However, all these Yajnyas are related to that first Swayambhu Yajnya, within whose domain various Yajnyas, big and small, are occurring everywhere. All of these are interdependent, their sequence following the pattern of Swayambhu Yajnya.

The entire cosmos is divided into numerous triple worlds — each world is a *Loka*. All these triple worlds are within the domain of *Parmeshthi*. Swayambhu Yajnya is located at the heart of Parmeshthi and is, therefore, often described by the same nomenclature. Ishwara is that specific Prajapati which is the substratum of Parmeshthi. This vast universe evolves from this Prajapati. This Prajapati is also called Atma.

Parmeshthi, like all Prajapatis, has three Vedas. Since Prajapati is Ishwara, its three Vedas are also Ishwara. As these three Vedas are Ishwara, Yajnyas being performed by the three Vedas are also Ishwara.³

In order to clarify the concept of Yajnya, we shall now provide a few illustrations of the process.

1. All that we see around us should be considered as Prana. This Prana exists and is present as light in Mana. Wak exists on the basis of Prana and is discernible as its radiance. These three — Prana, Mana and Wak — together become a Prajapati. The continuous process of transition of Mana into Prana, of Prana into Wak and of Wak again into Prana is Yajnya.⁴ According to seer-scientist Aitereya, the process of Mana entering Prana and becoming Wak, and the ensuing transformation of Wak into Mana, is Yajnya. The cause of this transformation is Prana, which is in the centre of the Mana-Prana-Wak triad. With Prana as the centre, Mana and Wak constitute the perimeter, like the felloe of a wheel, so that Prana is the activity around which Mana and Wak revolve. Throughout the whole process Prana activates them. This is Yajnya.

2. *Soma* is called *Amrit*, meaning 'imperishable'. *Soma* is that essence (*Rasa*) which is never destroyed; it is the supraphysical 'substance' from which all the objects in the world are made. In that sense, it is the 'material cause' of all objects in the universe. It permeates the entire atmosphere and has no form, smell or taste. However, all objects which do possess a form, taste, smell or tactile quality come into existence on the basis of contact with *Soma*.⁵ When one *Soma* clashes with another and the latter retaliates so that they crush or rub up against each other, a *Bala* is generated, known as *Saha*. *Agni* arises spontaneously from *Saha*, and *Yajnya* is the process by which *Agni* is born from the friction and attrition of one *Saha* with another.

3. *Havana* is the act of offering a substance to *Agni* (fire) for its consumption. When *Soma* is offered in *Havana* to *Agni*, it is transformed into *Agni*. *Agni* then converts itself into flame and radiates outwards until there is light. When it travels beyond that point, *Agni* loses its fieriness and is transformed back into *Soma*. The continuously recurring *Soma-Agni* cycle is called *Yajnya*, which is the process of transformation of *Agni* into *Soma* and *Soma* back again into *Agni*.

4. As explained earlier, *Yajnya* is the augmentation of and proliferation from the original *Prajapati*, and all beings in the universe are born from that *Yajnya*. In the same way, individuals and objects are continuing to be born from *Yajnya* now, and will continue to be created from *Yajnya* in the future. *Yajnya* creates and preserves every object in our universe.

The offspring of *Prajapati*, which come into being from *Yajnya*, are of two categories: *Deva* (also called *Devata*) and *Bhoota*. *Devas* belong to the supraphysical universe and *Bhootas* to the physical universe. (Some scholars have used the terms 'vital' and 'material' respectively to describe these two categories.) There are 33 *Devatas*, which include eight

Vasus, 11 *Rudras*, 12 *Adityas*, the *Dyau* (atmosphere) and *Prithwi* (earth). Chief amongst the *Vasus* is *Agni*. The last of the *Adityas*, which follow the *Rudras*, is *Vishnu*. *Yajnya* is the process of occurrence of the *Devatas*, the sequence which continues from *Agni* to *Vishnu*. All *Devatas* are encompassed in this *Yajnya*. It is a process which creates a community of *Devatas*, and that ensemble of *Devatas* is *Prajapati*. The evolution and proliferation of *Prajapati* as the 33 *Devatas* is the transformation of the unmanifest (*Anirukta*) *Prajapati* into a manifest form — from being remote and hidden, it becomes proximate and discernible.

5. Amongst the three *Vedas*, *Rik* and *Sama* do not originate on their own. They are not consumed and neither do they consume anything. However, *Wak* is within them, which is a form of *Agni* and is both consumer and consumable. It becomes a ray (*Arka*) and rises from the centre of an entity in search of something to consume. *Agni* also rises because of an assault by the 'consumer' *Prana* on some other *Prajapati*. So the *Agni* or *Wak* of one *Prajapati* is attracted or drawn into the body of another *Prajapati*, where another *Atma* consumes it.

The consumer (*Annada*) *Prana* is *Agni*, while the portion which becomes the consumable (*Anna*) of the other 'individual' is *Soma*. When it is offered for consumption to *Agni*, *Soma* loses its own appearance and immediately becomes *Urka*. *Urka* is a cold 'juice', which augments strength and is rapidly transformed into *Prana*. Equally rapidly *Prana* begins to consume *Anna*; so *Prana*, *Urka* and *Anna* are closely intertwined. For example, *Prana* holds *Soma* until it becomes *Urka*, and at another stage *Prana* is produced from *Urka*. This process of the 'birth' or coming into being of one from the other is called *Yajnya*. No individual or object can be created and sustained without *Yajnya*.

This process occurs in all individuals and objects perpetually. It propels our Atma, or the Agni of our body, to the sphere of the sun, often called *Swarga*.⁶ Although Atma continuously flows out to that sphere, it⁷ is so closely tied to our body through the medium of *Sutratma* that the place of Atma in our body remains undisturbed, and the process of its interface with the body and its organs is uninterrupted. This is why, in spite of Atma's continuous forays to *Swarga*, the Atma-body interface does not know that this is happening.

The Atma-body relationship can be understood better by the example of the sun and its reflection in water. The orb of the sun is reflected in water and its reflection changes with the passage of the orb across the sky. If we stir the water, the reflection dissolves, but as the water regains its stillness the reflection of the orb returns. In the meantime, no damage or diminution takes place in the reflection. So we can see that the reflection of the sun is not tied to the water, even though it may appear that way. Similarly, Atma does not know that it flows out of our body and, therefore, believes itself to be tied to our body, whereas in reality it is not.

YAJNYA AND ITS DIVISIONS

As explained above, Yajnya is the process of acculturation, which we have explained earlier in this chapter as the Sanskara of Agni. Agni is of three types:

1. *Vaidik Agni*, the Agni related to the Vedas.
2. *Deva Agni*, the Agni related to supraphysical energy.
3. *Bhautik Agni*, the Agni related to material or physical objects. (We know this Agni as 'fire'.)

Yajnya is the process of Sanskara of all these Agnis, and Yaju is another name for Vaidik Agni. The form of all objects — their appearance and configuration — is sustained by the essence of Yaju.

The Sanskara or acculturation of Vaidik Agni can be described in the following stages: Yaju exits from an entity in the form of Rik, but it returns as Sama when Agni assumes the form of Soma. The Sama that has returned to the entity becomes Rik when Soma is reconverted into Agni. The completion of the process takes place with the re-transformation of Agni into Yaju. This entire cycle is Yajnya. This process can be easily visualised if we think of the transformation of sea water into clouds, of clouds into rain, of rain into river water and of the river water flowing back into the sea, thus completing the cycle and resuming the process.

Deva Yajnya is the process of acculturation amongst supraphysical energies. This Agni is that expanded form of Prajapati which incorporates the 33 Devatas, such as Vasu, Rudra and Aditya. Yajnya takes place in Deva Agni through the interaction of Anna, Urka and Prana, as has already been explained.

Physical Agni, or fire, is the third category in which *Ahuti* (the act of offering or pouring an object into Agni, or fire) takes place. Individuals or objects which can be offered as *Ahuti* in Agni can be either Agni or Soma. We have already seen how Agni becomes Soma in this process.

When the offering of Agni is made, the process is called *Agni Chayan Yajnya*, or *Agni Yajnya*. This connotes a Yajnya in which Agni is used for the purposes of its own metamorphosis.⁸ When the *Ahuti* of Agni is made in Agni, the process resembles covering one coat of paint with another. When this happens, Agni becomes powerful, and Atma consequently becomes powerful also. As a result, Atma's association and links with Soma or material objects become weak and it begins to drop off, just as leaves fall off a tree. Atma leaves the earth and the moon behind and travels

directly to the sun in its Agni form. This happens because, as we are about to see in the following paragraph, the metamorphosis purifies Agni into its subtle, supraphysical state, a state in which the movement is instantaneous.

Vaishwanara Agni is a product of the combination of Deva Agni (ie. supraphysical Agni) and the physical, earthly Agni. The process of refinement removes the earthiness so that only the supraphysical portion remains, and in this way Atma attains emancipation.⁹ However, if the Ahuti (offering) of Soma is made in Agni, that Atma is not emancipated, although it definitely derives the joy of Swarga.

Swarga is the third of three successively higher regions in the cosmic phalanx. This is the region of the sun, which lies beyond *Bhu* and *Bhuvah*, the earth and space respectively. It is the intermediate stage between Atma's habitation in a human form and its complete emancipation.¹⁰ In this process, a supraphysical energy or Devata arises from the sun and becomes the Atma of a human body. It becomes one with the Vaishwanara of the body, in keeping with the nature of fire, and it leaves the body every moment in the direction of the solar region between the earth and the sun. This process is like the flames of a fire which continue to travel skywards. The Vaishwanara of a human body is a mirror image of the *Samvatsara* of the sun, which is composed of all the supraphysical energies or Devatas. Similarly, the Vaishwanara Agni in the body of a human being is also composed of all the Devatas. Therefore, to make Ahuti of Soma in Agni is to make an offering to all Devatas, and this act is Yajnya.

The *Samvatsara* of the sun is one full year, the time occupied by the earth in completing one revolution around the sun. Therefore, Vaishwanara has as many parts as there are in the *Samvatsara* of the sun. When we perform Yajnya, the Ahuti refines the *Samvatsara* of the sun, as well as refining

the Vaishwanara of the person who is performing the Yajnya — who is known as the *Yajaman*.

THE SAMVATSARA OF THE SUN AND ITS DIVISIONS

The Samvatsara¹¹ of the sun has 360 parts, of which day and night constitute the smallest. Each of these parts, i.e. one day-night unit, is comprised of two half-units, one white and the other black. Thus, the Samvatsara has 720 units in all — one white and one black portion making up each part — which operate alternately; a bright sunny day follows the dark night, which is again followed by the day.¹²

The earth moves approximately one degree every day. The space covered by the movement of one degree is assumed to have one bright and one dark portion. Thus we arrive at 720 portions, taking into account the movement of the earth in the course of one year. The bright portion constitutes a day as the dark constitutes a night. This is the first demarcation of Samvatsara.

The second demarcation is that of the months. As the moon rotates around the earth, it 'disappears' at a certain point as it comes between the earth and the sun, and this heralds another day. Because of the movement of both the moon and the earth, the moon moves to the other side of the earth and the earth comes inbetween the sun and the moon. Fifteen days elapse during this period, which is known as *Shukla Paksha* or the 'bright fortnight'.

Continuing its passage, the moon moves between the earth and the sun in another 15 days, which is known as *Krishna Paksha* or the 'dark fortnight'.¹³ Thus, by making one division in each fortnight the earth makes 24 divisions in a year. Of these, 12 are bright and 12 are dark and they occur alternately. These are the 24 divisions of a Samvatsara.

The third demarcation is of the seasons. There are three principal seasons in India: summer, the rainy season and winter, each of four months duration. Thus, the Samvatsara is divided into three parts.

The fourth demarcation is that of *Ayan*.¹⁴ For six months in a Samvatsara, the sun remains north of the equator, during which time it appears to be lower than the earth. In the following six months the sun is south of the equator. Because of this movement of the sun and the earth there are two divisions in the Samvatsara; the northern is called the Shukla portion, or the bright part, and the southern is the Krishna portion, or the dark part. The fifth configuration of the Samvatsara is one complete year.

Five varieties of Agni are operative in these five configurations of Samvatsara. Different kinds of Soma Yajnya consist of different forms of Ahutis in these Agnis. As we mentioned earlier, Ahuti is the act of making an offering to fire. In the case of these Yajnyas, it is the offering of one form of supraphysical energy to another.

Soma is that supraphysical 'essence' which is never destroyed and pervades in nature. Various Soma Yajnyas are given names, taking into account the time required for their completion. The Soma Yajnya that is completed in one day and night is called *Ekah*. That which is completed in 10 days and nights is *Dashah*, also known as *Aheen*. The Yajnya which is completed in 100 days and nights is called *Ratri Satra*, and that which is completed in 1000 days and nights is *Ayan Satra*. In this context, Yajnya means to grasp or hold a part of the Samvatsara, whether large or small, and subject it to refinement and acculturation.

To perform Yajnya causes refinement (Sanskara) of the Samvatsara. This is a major exercise. Other smaller Yajnyas are performed to earn and acquire the ability to perform a

Yajnya in order to refine Samvatsara. These are:

Agnihotra

Darshapoornamas

Chaturmas, and

Pashubandh.

Agnihotra focuses on the refinement of the day-night part of Samvatsara, while Darshapoornamas relates to the refinement of a fortnight or a month, Chaturmas of a *Ritu* (season) and Pashubandh of an Ayan, the six-monthly part of Samvatsara. Subsequently, the refinement of a complete Samvatsara takes place by five Soma Yajnyas. By performing these Yajnyas according to the solar Samvatsara, the Vaishwanara of the body of the performer (Yajaman) merges with the solar Samvatsara and accompanies it when the time comes to leave the body. Vaishwanara is the principal supraphysical energy that sustains the body. It causes hunger, and only by the offerings made to this Agni is the body sustained.

PRAJA

Creation is the process of birth, of being produced, and Praja is the product — that which has been born, which has sprung forth, emerged or been begotten. All that is produced is Praja. The entirety of creation is born from the Mana, Prana and Wak of Swayambhu Prajapati, the first 'entity' to appear in the process of creation. This 'entity' actually appears before the universe is created.

The process of creation begins when a desire arises in Mana. Desire for an object is the process of Mana transforming itself into the shape of that object. As soon as desire arises, Prana becomes active and begins to make exertions to actualise that urge. Prana is a kind of Bala, which applies itself to Wak, and the modifications which occur according to the Bala in Wak are Praja.

Two types of such modifications occur in Wak as a result of Prana-Bala operating in accordance with the desire of Mana. These variations are either Amrit or *Martya*. Amrit transformations are formless and constant, whereas *Martya* transformations have a form and are subject to change. That which is bereft of consciousness (*Moorchita*) is called *Martya*. In that state Wak loses its autonomy and becomes matter (*Bhoota*). The formless resides in all forms, and that is Amrit, also known by the name Devata. Praja is either *Bhoota* or Devata. (The statement that there is either matter or energy indicates the difference between these two.)

All that we see around us is *Martya* and is permeated with Mana, Prana and Wak. Within *Martya*, the ever-changing appearance, there is an unchanging *Amartya* 'factor', which is the substratum of all matter. The constant, unchanging, formless factor is Devata. This sustains, wears or upholds matter and controls and regulates all that is material (*Bhoota*).

Although Mana, Prana and Wak permeate all matter, Wak is primarily conspicuous. Differences in matter become obvious owing to these modifications in Wak, because modifications are possible only if Wak is there. Changes which would modify, distort or transform the original form of matter do not take place in Mana and Prana. When water is poured into a vessel, it takes the shape of that container. Rasa (the 'juice' or 'elixir') assumes form according to the mould in which it is cast. Water flowing in the fields, for example, patterns itself according to the available watercourses. Similarly, Mana and Prana take shape according to the various modifications which occur in Wak, because they cannot be different from the frame in which Wak has been cast. This frame is like the metre which shapes the piece of music, or the metre which gives a frame to poetry by regulating groups of syllables. Activity takes place in Prana

in accordance with the type of Mana occurring therein. When Prana acts, modifications occur in Wak. Therefore, Mana, Prana and Wak should be perceived in all material objects as being cast in one mould.

Mana assumes different forms as a result of modifications in Wak, but is never depleted. The feelings, thoughts or emotions which arise in the mind never become separate from it, and although Mana freely changes by virtue of its own *Maya*,¹⁵ it is never vitiated by any transformations which occur in it.

Similarly, although Prana assumes different forms because of its association with Mana, no actual modifications occur in it, nor do its links with modifications become solidified. As it operates with Wak it may appear to have acquired some diversity for a brief period. However, it will soon return to its original form. For example, we put in effort when we do some work. Effort (Prana) itself is formless, but assumes various forms such as pushing, pulling, dragging, dropping, binding and so forth, in association with our mind (Mana) and as directed by it. What form this effort acquires also depends on the nature of the material object (Wak) which is the medium of application of our effort. We draw water, throw a ball, drag a heavy weight or raise a glass.

Prana is another name for Bala, of which there are innumerable varieties. Wak assumes varying forms as various types of Bala mix with it in different measures. Let us recapitulate briefly at this point: all that exists is permeated with Mana, Prana and Wak. Of these three, modifications occur in Wak by the Bala of Prana, in accordance with the desire of Mana. Desire arises in Amrit Prajapati for the birth of Amrit, and Prana applies its Bala on Wak for Amrit. Amrit is actualised by the fusion of Mana, Prana and Wak.

In accordance with the desire in the same Mana and by

the application of the Bala of Prana, two tendencies emerge. One is introvert and the other is extrovert. That which is extrovert is restless by nature; it gradually gathers motion, becomes Anna, or the consumable, and is called Soma. If there were no Soma, every object would go on expanding and be destroyed ultimately because of this irrepressible expansion. If there were no Agni, on the other hand, every object would go on shrinking until it would ultimately cease to exist. As it is, however, the operational expansion of Agni is halted after it has reached a reasonable limit, and the retraction of Soma is similarly halted after it has reached a reasonable limit. This is how all objects in the universe maintain a balance between expansion and retraction.

We discussed earlier the meaning of Amrit and Mrityu, the former being changelessness, immortality or imperishableness, and the latter the opposite — change, mortality or perishableness. All of creation is a blending of the two. Prajapati is the creator and Praja the creation. The first Prajapati has both urges, Amrit as well as Mrityu, and this is how it should be. If both Amrit and Mrityu were absent it would be impossible to regulate the strength of Agni and Soma, which combine to create objects and entities. Unless both Amrit and Mrityu are present and, consequently, Agni and Soma are in equal measure, the variety which we see in this universe would be impossible, because the blending of Agni and Soma in varying degrees causes diversity. Craving for Mrityu arises in Prajapati, and Mrityu¹⁶ is also produced from Mana, Prana and Wak. As desired by Mana, it becomes one of two types: 1. The Mrityu of Soma, which is called *Yama*; and 2. The Mrityu of Agni, which is called *Amiti* or *Ashanaya*.

Different parts are assembled to make an object or create an entity, rather like different limbs being put together to make an individual. We often observe in our daily lives how different

parts of an object are stuck together by the use of glue or a similar substance, and how they tend to fall apart if the substance used to stick them together dries up. Joints become firm and well settled as a result of moisture or greasiness, but this degenerates over time. Yama is a hot substance, like Wayu (air), and has the property of dryness. This dryness causes the joints or the limbs of an object to become loose, and gradually to disintegrate until the object is destroyed.

The second category of Mrityu — Amiti or Ashanaya — is like intense hunger, drawing every atom into the pit of its belly and collecting and concealing them in the one place. It brings about a subtle metamorphosis in them, destroying their structure. The negative force of Ashanaya is so powerful that it cannot even sustain itself. It secures Amrit Soma deep within itself. (All this happens in accordance with the desire of Prajapati, and consequently Atma comes into being.) Since Ashanaya is 'wrapped' in Amrit, it does not expire, but rather appears in the form of Arka. Propelled by the Ashanaya hunger, Arka rushes for Anna and consumes it. Anna, we may recall, is an object which is consumed, while Annada is that which consumes Anna. In the Anna state, Ashanaya acquires the name *Apa*, that which is oleaginous and joins pieces together.¹⁷ *Apa* carries all food (Anna) inside the body, counteracts the expansion of Agni, and propels it inwards.

PROPERTIES OF AGNI, SOMA, YAMA AND APA: SIMILARITIES AND DISSIMILARITIES

Soma and Agni have similarity in respect of the attribute of imperishableness (*Amritatva*). Yama and *Apa* have similarity in respect of the trait of mutability (*Mrityutva*). Yama and Agni have similarity in respect of the attribute of dryness (*Rookshata*). Soma and *Apa* are similar insofar as they are both oleaginous and have the property of greasiness (*Sneha*).

Both Agni and Yama belong to the broader class of the supraphysical energies encompassed by the generic name of 'Agni'. But whereas Agni is imperishable, Yama is mutable. Similarly, as mentioned earlier, Soma is the material cause of the universe. The entirety of space is filled with it, yet it has neither form, fragrance nor taste. Nevertheless, all entities which possess a form, fragrance or taste are made from it. All supraphysical energies (with their differing attributes) which fall in this category are Soma, although this is also the name of a specific entity in the same class. Soma and Apa both belong to the class of Soma, but while Soma is imperishable, Apa is unstable.

The interaction of Agni and Soma takes place continuously in the supraphysical universe. There are two classes of Agni, one of which accepts and embraces Soma while the other repels it. The former class of Agni, which consumes Soma, becomes Yajnya. The other is antagonistic towards Soma, obstructing or controlling the offering of Soma. This class of Agni is called Yama.

Agni is primary — an 'element' — as well as compound. When the primary Agni and primary Soma are blended, a compound Agni is produced. This category of Agni is gross (as opposed to subtle) and has a physical form. When Agni and Soma are separated by the presence of Yama, this physical Agni is extinguished because it does not obtain 'food' in the form of Soma.

Soma has two classifications, like Agni. That which is burnt in collaboration with Agni becomes an integral part of the compound Agni. The other variety of Soma is not incinerated by Agni, but evaporates out of its intrinsic weakness. If it were strong, it would displace Agni. This variety is called Apa. Thus, Agni, Yama, Soma and Apa are four Tattwas, and whatever we see around us is produced

from these four. We can include the Yama in Agni and Apa in the category of Soma. Thus, there are these two principal 'elements' of Agni and Soma.

Rishis have propounded the theory that this entire universe is composed of Agni and Soma.¹⁸ The Loka (residing place or location) of Yama is the sun (*Vivaswana*), and that of Agni is the earth (*Prithwi*), of Soma is the moon (*Chandrama*) and of Apa is the vastness of space (*Akasha*).

The direction of Agni is to the east, while Yama is to the south, Soma to the north and Apa to the west. These four Tattwas travel to the earth from the four directions. The work of Deva should be done facing the east and the north. The work of the *Pitaras* (ancestors or forefathers) should be done facing south; and when one is forced to engage in unpleasant or *Asura* acts, these should be performed while facing west.

It should be mentioned here that both Deva and Asura are supraphysical energies, and all work or activity is a result of the application of these supraphysical forces. This is so whether an action is good or bad, pleasant or unpleasant. As we know, human beings are required to do things that fall into either category, so it is suggested that when we have to do an unpleasant or distasteful act, it should be done facing west because these four Tattwas sustain Devatas, Pitaras and Asuras. Of all the Devatas, *Vasudevata* maintains a special relationship with Agni; *Rudradevata* does likewise with Soma and Yama; and *Adityadevata* has a similar relationship with both Yama and Apa. These Tattwas have further divisions and proportions, a subject which is covered in detail in the *Vidya*¹⁹ of *Devavad*.

Soma Tattwa tends to move towards Agni, *Yama Tattwa* towards Prana, and *Apa Tattwa* towards Wak. Mana causes Soma to create mass and magnitude in an object, and Agni

and Yama create motion or activity in that same object because of Prana. Reliant upon Wak, Apa supplies the 'substance' that makes up an object. When water is added to mud, it thins; the more water is added the thinner becomes the mud. If this thin matter is then heated, the water gradually evaporates and the substance begins to thicken. Soma is watery and Agni is fiery; a substance becomes thick or thin depending on the proportion in which Soma and Agni are blended. These two are always together. The lubricating quality of Apa causes particles of a substance to move closer and adhere to each other, while the dryness of Yama loosens their bonds. The association of Yama reduces the strength of Soma, while Apa reduces the strength of Agni.

We have noted earlier that all Prajas, i.e. all that is created, are grouped into the two broad categories of Devata and Bhoota. Both Devata and Bhoota are created from the combination of these four Tattwas. Depending upon the proportions in which these four primal elements are blended, several varieties of Devata and Bhoota are born. Devata is born from the blending or consumption of Soma in Agni, and its Yama and Apa are minimal. Conversely, Bhoota is produced from Apa blended with Yama, with Agni and Soma present in only nominal measure.

However, the *Tatteriya* and *Aitereya Brahmana* texts hold that both Devata and Bhoota are produced from Apa, a viewpoint known as the Theory of *Ambhavad*. This theory asserts that, rather than there being four elements of equal importance, Apa is the primary element. A different viewpoint maintains that Devatas are born when *Amrit Soma* enters *Amrit Agni*, and that when Agni is subdued in Soma, Bhoota is born. Notwithstanding these subtle nuances, all seer-scientists aver that the whole universe is permeated with Devatas and Bhootas, and nothing else exists.

Each of these four — Soma, Yama, Agni and Apa — are divided into the two categories of Amrit and Martya. To the extent that they are permeated with Wak, all are changeable (Martya). To the extent that they are permeated with Mana and Prana, all four are imperishable (Amrit). The substances produced from these four are also of two types: with form and formless. Those that have a form are Martya, and those without a form are Amrit. The substances with form are further subdivided into two classes: that which has a shape (such as the earth, water, fire) is changeable (Martya). The sky (Akasha) and air (Wayu), having no shape, are unchanging (Amrit). Those substances which are included in the category of the formless are further subdivided into two groups: the first group includes *Amrit Prana* (the changeless supraphysical energies) such as Rishi, Pitara, Deva, Asura, *Gandharva* and *Manushya*. However, Vaishwanara — the supraphysical energy that sustains the human body — and other similar supraphysical energies produced from Prana are changeable (Martya), even though they are formless.

SEVEN RISHIS: CATEGORIES OF PRANA

As we have said before, Prana never exists without Wak, and it causes all the modifications that we witness in Wak. Prana exists everywhere and is divided into seven categories in accordance with the desire of the Mana of Prajapati, the original factor which caused the whole process of creation by its three 'components' of Mana, Prana and Wak. Each of these categories of Prana is called Rishi.²⁰ When Rishi is in its unmodified state, it inspires, spurs on and motivates Wak, and is thus the causative agent of Wak. It cannot be a compound, and is always the regulator of Wak. The term *Saptarishi* ('seven Rishis') indicates its seven classifications. However, although Rishi is mainly of seven types, additional

varieties arise owing to the variation in the measures of Prana and Wak. Compound Pranas arising out of the combination of various Rishis are called Pitara.²¹ These also have several varieties, but are mainly of eight types.

Devatas and Asuras are born from the combination of various types of Pitara. The Prana which has the qualities of light, of being illuminating and lustrous, is Devata. Asura, conversely, is that which is dark and never comes into the light. Although the difference between Deva (which is the same as Devata) and Asura is between darkness and light, the two belong to the same genre because they are both born from Pitara. The locale of Devatas is gold, that of Pitaras is silver and of Asuras is iron.

These three symbolise three types of substances: those which are luminous or self-illuminating, those which shine in the light of some luminous source, and those which do not illuminate. All substances fall into one of these three categories. While the Pranas which belong to Devata, Pitara or Asura classifications reside in the three locations of Devatas, Pitaras and Asuras respectively, Rishi Pranas reside in all three, having no specific location.

There is a class of Prana that is tied to the human body and is known as *Manushya Prana*. It is related to the human mind, including the sense organs. 'Mind' is Mana in Sanskrit, and the word *Manushya*, meaning 'humans', has evolved from it. When we are dreaming, this Prana lingers outside our body. After our death, it appears in another form and moves in the space above the earth and below the moon until it exhausts its lifespan. Pranas of this class, moving about in space as indicated above, are called Gandharva and are a separate category of supraphysical energies, a distinct 'species'. In summary, the first order of creation of Prajapati comprises Rishi, Pitara, Devasura, Manushya and Gandharva.

Earlier we mentioned two types of Devatas, classified on the basis of Agni and Soma. These two are further grouped into Amrit and Mrityu. *Amrit Agni* is called *Shiva*, and *Mrityu* or *Yama Agni* is called *Ghora*. *Shiva Agni* is of three varieties, Agni, Wayu and *Soorya*, each of which guards a distinct Loka or region. These Lokas are the three worlds, together known as *Vaishwanara*. The *Shiva Agni* of each region has its distinct nomenclature.

Of these, the Agni of the earth is of eight varieties, called *Vasu*. The Wayu of the region between the earth and the sun (*Antariksha*) is of 11 varieties, known as *Rudra*. The *Soorya* of the region including the sun and extending beyond it (*Dyau*) is of 12 varieties, called *Aditya*. In addition, there are two Devatas called *Ashvani Kumar*. Thus, in all there are 33 Devatas, which are variations of *Shiva Agni*, a manifestation of *Amrit*.²²

These Agnis are given different names when seen from the earth. The Agni of the earth is called *Garhpatya*; the Deva Agni coming from the solar region is called *Ahavaniya*; and the Agni of *Antariksha* (the intermediate region) which resides on earth in eight forms is called *Dhishyagni*. The totality of these Agnis is known as *Virat*. When the Agni of earth, the Wayu of space and the sun of *Dyau* come into contact or collision with each other, a new Agni is generated, known as *Vaishwanara*. It permeates all regions, and resides in our body in four forms.

Ghor Agni is also of four types: *Pawaka*, *Pawamana*, *Shuchi* and *Niti*. *Pawaka Agni* is found in air (Wayu), *Pawaman Agni* in water (Jala), *Shuchi Agni* in the sun (Teja), and *Niti* or *Nairitiagni* in the earth (Prithwi).

Soma Amrit is of two types. The first is that which has a mass or amplitude, and the second is that without any such mass or amplitude. The first is found in the moon and the second in various directions — north, south, east, west etc.

The Soma which is Mrityu is called Apa, and Amrit Agni resides in it. When the two are blended completely, Apa is transformed into earth. Thus, the earth (Prithwi) is formed from a combination of Agni and Apa.

Creation belonging to the physical order has a body, whereas the supraphysical resides in the body as its Atma. This Atma — which is the integrated totality of Mana, Prana and Wak — exercises complete control over the body. There are seven classes of the supraphysical (Devata) and the physical or material (Bhoota), like the seven stages of a structure (*Vyahrtis*). These are also known as the 'seven Lokas', and are as follows:

1. *Bhooha*
2. *Bhuvah*
3. *Swah*
4. *Mahah*
5. *Tapah*
6. *Janah*
7. *Satyam*

There are seven classifications of Devata, as follows:

1. Manushya
2. Gandharva
3. Devasura
4. Pitara
5. Rishi
6. Prana
7. Mana

Similarly, Bhootas have seven states, which are the following:

1. Earth (Prithwi)
2. Water (Jala)

3. Sun (Teja)
4. Air (Wayu)
5. Space (Akasha)
6. Prana
7. Mana

To summarise, the body is a mass composed of all the seven Bhootas, or physical entities. The Atma which regulates the body is composed of the aggregation of the seven Devatas or supraphysical entities.

(It should be noted that some seer-scientists hold the view that Agni, Wayu, Teja, Chandrama (the moon), *Dik* (the directions of north, south, east, west etc.), Prana and Mana are the seven classifications of Devatas.)

DESIRE, ENDEAVOUR AND LABOUR

Both Devata and Bhoota are produced from Atma. Prajapati is Atma, an aggregate of Mana, Prana and Wak. Before something is produced or created, three processes inevitably take place, which are *Ichha* (desire, urge or impulse), *Tapa* (intense mental and intellectual endeavour, or exertion) and *Shrama* (physical effort or labour).

The process of creation is an activity, and activity is an attribute of Prana. We have seen already that there is no spontaneous activity in Mana and Wak. In view of the fact that Mana, Prana and Wak are always together, all three register a disturbance as soon as it occurs in Mana. Such a disturbance in Mana is known as *Ichha*, a desire, urge or impulse. A disturbance in Prana is called *Tapa*, or endeavour, and a disturbance in Wak is called *Shrama*, or labour.

Shrama is any effort undertaken by the physical body. However, this physical labour is undertaken as a result of Prana's endeavour within the body. This endeavour is a

consequence of desire, and desire is a consequence of knowledge or awareness of an object. So when the mind (Mana) becomes aware of something, its innate tendencies (*Rajovritti*) cause an impulse, generate an urge and spur it on to develop a desire for that object. Desires or impulses can be positive or negative, and include both attraction and revulsion towards an object. A disturbance in the mind follows this desire, and the chain of activity or processes of endeavour, effort and labour begins. As scholars have stated:

*Jnanjanya bhavedichha, ichhajanya kritibhavet
Kritjanyam bhavet karma, tato vishaya sidhdayah*

(From knowledge arises desire. From desire ensues endeavour and from endeavour follows actions or activity. From actions one gains material goals)²³

PARAMANU: THE SMALLEST UNIT

Desire causes Prana to be divided into smaller or larger portions, each of which contains a measure of Wak in accordance with its size. Every portions secures with it a measure of Wak in accordance with its own mass. Jeeva comes into being with Wak both within and outside it. When Wak has Prana in its womb, the Wak is divided into small portions. Conversely, when Prana has Wak in its womb it is dispersed into small parts, each known as a Paramanu. In modern science the term most closely approximating Paramanu is 'nucleus'.

In the physical universe — which is the subject of 'modern' science — the atom was earlier considered the smallest unit of matter. (The word 'atom' is derived from a Greek word meaning 'indivisible'.) This theory has been revised, however, and modern scientists now generally accept the hypothesis that matter is composed of units

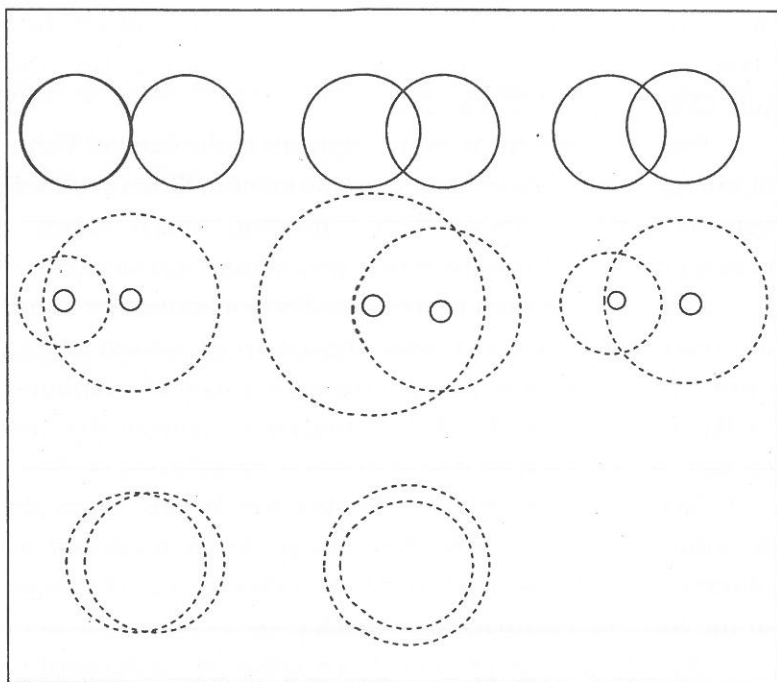
smaller than atoms. The Particle Theory of Matter²⁴ sheds considerable light on this subject.

The concept of Paramanu, the smallest particle of all, is discussed in considerable detail in the *Vedas* and their auxiliary texts. These Paramanus are classified in various categories. For example, a Paramanu of air (Wayu) is created when two Prana Paramanus of Yama and Agni blend to make a compound. A compound of Agni and Soma creates a Paramanu of water. A Paramanu of clay is created from a compound of Agni, Yama and Soma. Thus, the compounds of Agni, Yama, Soma and Apa, in varying degrees, give rise to an enormous diversity.

Prana has two attributes. It can hook various Paramanus together and assimilate them into one. It can also hold and support several Paramanus together. These two attributes give rise to compounds of Prana and a distinct variety of Prana comes into being. Two or more Paramanus are tied together in one Prana and are held in the same way as water in a cup, or sugar in water (forming a syrup in that cup).

One Paramanu does not attract another Paramanu of its own volition. They are all independent and complete in themselves. However, Paramanus which have the same Prana remain tied to each other. This takes place in eight different ways and each produces a specific type of compound, each type reflecting a different arrangement of Paramanus. They are as follows:

1. Two Paramanus remain separate.
2. Two Paramanus are together back-to-back, or one Prana is in the belly of another.
3. Two Pranas are behind one Paramanu.
4. One Prana is behind one Paramanu.
5. Two Paramanus of Prana are in the belly of a second Prana.
6. One Paramanu is in the belly of a second Prana.



7. Two Paramanus are joined together back-to-back.
 8. Two Paramanus are joined together centre to centre.
- The illustration above shows the eight modes in which two Paramanus (tiniest atoms) couple and unite due to the specific characteristics of their Prana.

PARAMANUS: EIGHT MODES OF UNION

The small demarcations which Prana makes initially in Wak permeate the whole universe. These are called Akasha (or space) and are infused with sound. The seer-scientists observed that the process of creation from antiquity onwards follows the same pattern: the universe is in the form of Akasha and remains in that form for a very long time, almost an eternity. A portion of that primal Wak then permeates Akasha, or a small portion of it begins to 'solidify', 'settle'

or 'crystallise' due to the presence of Soma. Ultimately, a crystallised substance fills the entire Akasha, and this substance is called Wayu (air).

For some time the universe remains in the form of Wayu. However, as time passes there is movement in Wayu and from that movement comes internal friction, which causes a portion of the Wayu to be transformed into Teja or heat.

The universe then remains as Teja for some time, until the Teja intensifies and a terrific impact occurs within it. This causes Teja to become numb, and such a state of numbness in Teja is called Apa. Then the universe remains in the state of Apa, until gradually the induction or mixture of Wayu and Teja — air and heat — in this Apa brings about the creation of Prithwi (earth). It is not yet in the form that we observe it. At this point, Prithwi pervades the entire Akasha in the form of Paramanus, or nuclei.

With the passage of time, Wayu gathers these Paramanus together and gives them a structure, which we call the earth. A similar gathering together of Paramanus of Teja forms the globe of the sun. Various 'substances', like Mana, Prana, Shabda, Wayu, Teja, Jala, Prithwi and so on, are formed from these Paramanus. This is how the second order of creation evolves from the first order of creation.

According to the Vedic texts, thousands of rivers once flowed on this earth, most of which have now disappeared. Of those that remain, the ones which were at one time very deep have become shallow. Even in a vast and deep river, small islands or areas of raised landmass have emerged. The process of water transforming into clay or earth has caused these formations, and the total quantum of water has been reduced. As the second order of creation increases, the forms of the first order continue to diminish, so that the physical and material universe we witness today is the stage reached

by this process. Further creation may be occurring, or this creation may be gradually vanishing. It is impossible to state this with any certainty.

In the process of creation of the five Mahabhootas or fundamental factors, a stage arrives when Mana begins to crystallise in the form of the earth. At that point it finds no scope for further condensation. Perhaps it is then that it becomes restless and turns, as if in reverse gear, in search of room for expansion. So, from a time when there are only physical bodies or material objects, life begins to emerge. This is yet another form or manifestation of Mana. At first there is a little life and then slowly the mind, intellect and Atma evolve. As Mana develops, the level of intellect in various beings rises and the presence of Atma is augmented, which explains why we find more consciousness and awareness in human beings than in insects, animals, birds and so forth.

This attribute of Mana causes human beings to begin to make efforts for emancipation, which they seek to achieve by the acquisition of knowledge and by intense endeavours of various types (Tapa). Their efforts and exertions could result in an increase in the proportion of consciousness as compared to the physical portion. Gradually the physical bondage becomes less, and human beings become so completely pervaded with consciousness that they are emancipated. As the process of emancipation takes place, Teja is transformed into Wayu and Wayu into Akasha. Ultimately, Atma remains only in the form of Prana and Mana. Thus, the human mind finds a way of liberating itself from the counter-creation which takes place in opposition to creation.

In summary, this creation of ours can be divided into three stages, as follows:

1. The physical creation, from Mana to Prithwi.

2. The creation of the sun, moon, earth and so on from the five Mahabhootas (fundamental factors).
3. The creation of minerals, vegetables and living organisms — leading to human beings — on these globes.

The evolution of Mana continues gradually. As it increases in living organisms, a stage is reached where with the help of Jnana (or consciousness) a person can transform the material, physical and supraphysical ingredients of Atma into the state of Mana and achieve emancipation.

The transformation of one indivisible, limitless, utterly motionless and tranquil unity into this fascinating multiplicity, plurality and numberless variety, in which every entity continues to be connected with the source, is a fascinating process. How that one becomes the many, and how that extensive variety finally submerges into the indivisible unity, is the subject of Jnana and Vijnana. The seer-scientists or Rishis have given us a comprehensive body of knowledge and numerous branches of science in which this wholistic reality is the substratum upon which each edifice is constructed. They have also indicated ways of 'experiencing' this process. Verification of reality with the tools of the human body is the method of 'modern' science. The method given to us by the seer-scientists consists of experiencing reality by enhancing the potential of these tools and employing subtler powers, which enable a person to 'enter' and experience the supraphysical universe.

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- 1 Yaju has a silent 'h' sound at the end. According to rules of euphonic conjunction in Sanskrit grammar when Veda follows Yaju (h), the silent h becomes 'r' and the single word becomes Yajurveda. However, when Veda does not follow, the word stands as Yaju.
 - 2 The English translation of Satya is 'truth'. The seer-scientists use this

- term to convey a factor that is enduring, imperishable and unchanging.
- 3 Please refer to the chapter "Jeeva, Ishwara and Parmeshwara" for an explanation of the meaning of these terms and their relationship to Atma.
 - 4 *Wachashchittasyottarottarkramo Yajnya* — Maharshi Aitereya. Quoted by Pandit Madhu Sudan Ojha in *Brahma Vijnana*, p. 148.
 - 5 Commentators and translators, unaware of the supraphysical connotation of the *Veda Mantras* and cosmological principles enunciated therein, have interpreted Soma as "the drink of the gods, the drink that made gods immortal and confers immortality on mortals". This, in spite of the fact that the 'experts' noted that "the entire ninth book of the Rigveda Samhita consists of Soma hymns" (Patrick Olliville, *The Early Upanishads*, p. 19).
 - 6 Swarga has been translated as 'heaven', but the relevant meaning is different, as explained here.
 - 7 There are various dimensions of Atma. The dimension which maintains this link is called *Prajna Atma* or *Kshetragna*.
 - 8 The Agni in which the Ahuti of Agni or Soma exists is one of 11 categories: *Garhpatya* is related to the earth; *Ahawaniya* is related to the sun; the third is a group of eight (*Ghisnyagni*) which is related to space. And the last category is called *Nairit Agni*. This is a separate subject of study.
 - 9 'Emancipation' is an approximate translation of *Mukti*. There are various forms and stages of the emancipation of Atma, and this specific stage is called *Kaivalya Mukti*.
 - 10 Atmas journey through various stages, and their experiences in different states are discussed by this author in a separate monograph on *Shraddha Vijnana*, the science of the journey after death (publication in progress).
 - 11 We use the term 'Samvatsara' or 'the Samvatsara of the sun' and not a year because, while a year conveys the sense of Samvatsara, the word itself represents more than just a year. It is the personification of the supraphysical energy which underpins the period of a year. In fact, an entire school of cosmology in ancient India was based on the study of the supraphysical energy which makes a year. This is called *Samvatsara Vidya*, or the science of Samvatsara.
 - 12 Although days are now measured from midnight to midnight, this has not always been so. Astronomers from about the 2nd century AD until 1925 counted days from noon to noon. In earlier civilisations, different methods of reckoning the day were followed. Some societies used a dawn-to-dawn reckoning, calling the succession of days so many dawns, or suns. Later, the Babylonians, Jews and Greeks counted a day

- from sunset to sunset. Other societies said that the day began at dawn, and still others counted the day from midnight onwards.
- 13 The ancient Germanic peoples recorded the passing of time in units of 'nights' rather than in units of days. Hence a period of two weeks was *feowertiene niht* or 'fourteen nights' in Old English. With the passage of time, this contracted into the one word, 'fortnight'.
 - 14 The sun's path north or south of the Equator, the half year.
 - 15 Maya is one of the most complex of phenomena. At this stage, let us understand it as the most extraordinary power which exudes from the infinite and makes possible the interplay of finite things that we see as the universe. Several scholars have described Maya as 'illusion'. This has led to the emergence of a philosophical school which holds that the world is an illusion and not real.
 - 16 *Mrityu* is often translated as 'death'. While this is correct in common parlance, it has a specific and 'scientific' meaning in the terminology of the *Vedas* — the continuously changing factor in the dialectics of existence. *Amrita* is the constant, unchanging factor.
 - 17 The word *Apa* is generally translated as 'water'.
 - 18 *Agnisomatnakam jagat* — Pandit Motilal Shastri, in *Samvatsarmoola Agnisom Vidya*, the first of five lectures delivered between 14th and 18th December 1956 in New Delhi.
 - 19 *Vidya* is knowledge. In this context it approximates the word 'science'. Although we could translate it as the 'science of *Deva*', it is inadvisable to visualise it in terms of the normal modern conception of what science is.
 - 20 This is not to be confused with the meaning of *Rishi* as 'sage' or 'seer-scientist'.
 - 21 *Pitara* (also spelt as 'Pitra') is translated as 'forefather' or 'ancestor'. It is a category of supraphysical energy that the seer-scientists have given us ways of harnessing. Their relationship with ancestors is only one aspect of these energies.
 - 22 Unfamiliarity with this supraphysical reality has led several commentators to proclaim that Indians believe in 330 million gods. This is a ridiculously erroneous translation of '33 *Koti Devatas*'. '*Koti*' means 10 million, as well as 'classification' or 'category'.
 - 23 Pandit Madhu Sudan Ojha, *Brahma Vijnana*, p. 160.
 - 24 A strong force binds particles together: by binding quarks within protons and neutrons, it indirectly binds protons and neutrons together to form nuclei. Nuclei can, however, break apart, or decay naturally in the process known as radioactivity. One type of radioactivity is called beta decay, in which a nucleus emits an electron. This has been known

since the late 1890s; but it was only with the discovery of the neutron in 1932 that physicists could begin to understand correctly what happens in the radioactive process.

The most basic form of beta decay involves the transmutation of a neutron into a proton, accompanied by the emission of an electron to keep the balance of electric charge. In addition, as Pauli realized in 1930, the neutron emits a neutral particle which shares the energy released by the decay. This neutral particle, has little or no mass and is known as the neutrino.



*om poornamadah poornamidam
poornat poorna mudachyate
poornasya poornamadaya
poornam mewawashishyate*

That is whole,
This is whole,
That is infinite,
This is infinite.
When the infinite is taken out of infinity,
What remains is infinite.

INVOCATION AT THE BEGINNING OF ISHA UPANISHAD

*indriyani paranya ahur
inriyebhya param manah
manasastu para buddhir
yo buddheh paratastu sah*

The senses are greater than the flesh,
Greater than the senses is the mind,
Greater than the mind is the intellect,
Greater than the intellect is he (I).

BHAGAVAD GEETA 3:42



CHAPTER SIX

Who is the 'I'?



WE CAN ALL FIND IT DIFFICULT TO GRASP A NEW IDEA, and none more so than the specialist and the expert. All such individuals develop considerable attachment to, and vested interests in their area of expertise or specialisation. When they encounter a new idea, they tend to decry, denigrate, ridicule or dismiss it. This has been the fate of all new ideas, and on occasion those who proposed them have had to pay heavily for their 'audacity'.

But the human urge for enquiry is irrepressible, and a conspiracy of silence (or attempts to kill an idea by heaping scorn and ridicule on it) sometimes fails. It may happen that a new idea touches a chord in the minds of a few sensitive and sincere people possessed of intellectual integrity and thus finds a conducive environment in which to flourish. As the radiance of its truth extends, the clouds of doubt begin to disappear. The new idea establishes a foothold and ultimately prevails.

There is yet another obstacle to the human ability to understand new ideas, which is the limitation of our tools of understanding. The human mind is shaped by past experiences, and language is a vehicle for recording, retrieving and communicating those experiences. In this context, technology goes some way to augmenting the capabilities of the basic equipment human beings already possess.

When the seer-scientists of the *Vedas* 'saw' the great truths and wanted to pass them on for the good of humanity, they found it necessary to sharpen these tools of understanding. When the ideas were too subtle to be

communicated in words, they indicated to the seeker the path of direct experience and showed the direction in which to look to experience that reality.

Students of modern science know that at some juncture in the process of exploration, the tools of observation become inadequate; they fail to assist us to know or see phenomena. These are then expressed in mathematical formulae. The scientist conversant with that language is easily able to understand the reality represented by those formulae. The seer-scientists of the *Vedas* identified the tools of observation and investigation, assessed their strengths, limitations and potential, and developed methods for sharpening and augmenting the power of those tools by harnessing their untapped potential.

The process of understanding the *Vedas* is a journey from the gross universe to its extremely subtle regions. It is a steep ascent from the knowledge of what we see with our eyes and other sense organs to the knowledge of that which is beyond and behind these organs. This exercise is akin to the process of understanding a human being. That is why, among all species, human beings alone can discover the processes of the coming into being of the universe and experience the forces which make creation possible. An earnest student begins the enquiry into the nature of the universe with the question: "Who am I?" An enquiry into who is the 'I' is the starting point for an investigation into the nature of the universe. Let us try to understand this question.

WHO AM 'I'?

It all begins as 'I' come into contact with the universe, with 'you' and all others. Initially my body is my introduction to the universe. You look at my body and come to the conclusion that this body is Rishi or Robert or Mary or

Mohammed, or whatever name I may have. But this is obviously a superficial view, because in addition to the body that you see, there is another component which enables me to feel joy and sorrow. This is that part of me which continuously rushes towards objects and in which thoughts arise and subside, the part of me which continuously desires one thing after another. This part of me is my mind, and it is an important piece of equipment. Forever in a state of restlessness, the mind is constantly rushing after one thing or another. Most minds are never quiet and still. As someone comes to know me better, (s)he begins to claim, perhaps rightly, that (s)he is aware of the workings of my mind. (S)he then comes to know me at a deeper level than my body, with which (s)he identified me in the first instance.

Moving a little deeper, I find another part of me which enables me to control this mind; this equipment is my intellect and its major function is discrimination. When my mind desires something, my intellect tells me whether it is proper for me to pursue it or not. I enter a bank and see a bundle of currency notes lying on the table; my intellect tells me whether I should pick it up or not. I stand on the top of a mountain and am so enchanted with the beauty of the river flowing beneath that I wish to fly into the air and jump into the river. It is my intellect which tells me that I would hurt myself if I did so. I see a beautiful object belonging to another person and strongly desire to possess it; my intellect tells me whether I should attempt to make it mine or not. Thus, my intellect examines the data pertaining to a thought or a desire and guides me as to what is advisable in the circumstances. Of course, very often I ignore or defy this advice given by the intellect. The desires and thoughts arising in my mind may overpower me so that I obey their dictates.

The other predominant quality of the intellect is that it grapples with problems and endeavours to find solutions to them. The intellect asks questions and tries to find answers. It is the equipment which spurs a human being on towards excellence.

Readers will have noticed that in the preceding paragraphs I have been using phrases like 'my body', 'my mind' and 'my intellect'. Who is this 'I', to whom this body, mind and intellect belong? When we begin to pursue this line of enquiry, we are moving from the grosser aspects of the universe to its subtler regions.

The answer to this question also tells us how a human being is distinguished from other species. Broadly speaking, all sentient and inert objects in the universe have several common features. In common with human beings, tables, chairs, plants, rivers, trees, flowers, dogs and donkeys possess a body. We often use — very appropriately — phrases like the 'body' of a car or of an aeroplane. Like humans, animals are sometimes happy and sometimes sad. A domestic dog, for example, may be noticed at times to have tears in its eyes. There are other occasions when it is full of happiness and jumping with joy. Or it may be angry and howling at us. Thus we can detect that animals also possess this equipment which enables them to feel pleasure and pain, to run after objects and to have desires.

THE BODY, MIND AND INTELLECT

There is enough evidence to show that animals also possess intelligence, although their level of intelligence may be low in comparison with human beings. But with appropriate training, their intelligence can be developed to a surprising degree. So humans cannot claim exclusivity of body, mind and intellect.

However, there is something other than this body-mind-intellect equipment which distinguishes human beings from other species, and identifying this other factor is essential for knowing me. Who am 'I'? The seers ask this question and give us the answer, or perhaps we should say that they indicate the direction in which we should go to find the answer for ourselves. For, ultimately, I have to discover the answer to this fundamental question myself.

When I am awake, I see the universe around me. I begin the day, carry on my normal activities, eat and drink, interact with others, go to work, come back home, enjoy a TV show. And then I go to sleep. While sleeping, I am unaware of what is going on around me. I do not see the universe. But in my sleep, I dream and in my dream I undertake a journey. I talk to people, they quarrel with me, I retaliate. The argument reaches a frenzied state. Suddenly a friend intervenes to separate us, and as he pushes us back-I wake up. Who was this 'I' who was conversing, journeying and quarrelling while 'I' was asleep? Is the dreamer different from the waker? While this question is occupying my mind I sink back into sleep, exhausted. It is raining heavily, but I am completely unaware of the storm, or of anything happening in the world. The sun rises and the whole world begins its day. My son goes to school and my daughter leaves for her music class. I am totally unaware of these events. My wife has to go to work and wakes me up before she leaves the house. I open my eyes abruptly, look around and say to her, "Oh, I had such a sound sleep." Who is this 'I' who had a sound sleep, while 'I' was unaware of what was happening in the world around me?

These are not mere metaphysical questions. The process of discovering myself is the process of discovering the universe. The *Vedas* ask these relevant questions and guide us on our journey towards discovering the answers.

THE LIMITATIONS OF EQUIPMENT

We need to be aware of the power as well as the limitations of the equipment with which we seek these answers. The equipment we have talked of so far is the body-mind-intellect composite. The human body functions via organs, which are divided into two groups: the first consists of the organs of action, including the larynx, hand, foot, anus and genital organs. The second consists of the five organs of perception, which are the eye, ear, nose, tongue and skin. With the organs in the first category we perform all our 'actions' of eating, drinking, moving, making physical contact with things, reproduction, excretion, etc. The organs of the second category enable us to see, hear, smell, taste and touch.

These two groups of organs are the tools of the body, and represent both its power and limitations. The mind and the intellect augment the power of these tools, but even they are unable to give us an answer to the question: who is the 'I'? Who is this 'I' that watches the universe when I am awake? Who is it that dreams? Who is it that sleeps so soundly as to be totally unaware of what is going on in the world? It appears that 'I' am in a different world when 'I' am awake from the one 'I' inhabit during sleep. The *Vedas* examine whether there is only one world, which I see in my waking state, or more than one world.

Let us give this 'I' a name: awareness or consciousness. The *Vedas* call it Atma. In the vast literature on Indian philosophy, and in the *Upanishads* where the nature of Atma is explored, it is described as 'Self'. We shall return to the nature of this fascinating exploration as we continue our journey.

BEYOND BODY, MIND AND INTELLECT

While the body is unaware, the mind is dreaming and the body, mind and intellect are in deep slumber or are

unconscious, Atma remains awake and alert. It tells me that I had dreamt and communicates to me whether I had a sound and pleasant sleep or a disturbed sleep. Readers will find, especially in the first few laps of our journey, that we are using 'awareness', 'consciousness' or 'knowledge' as a translation of this enduring and eternal factor; and they will also begin to discern the nuances conveyed by these words. After a while these terms will become inadequate to convey the subtle and finer dimensions of this factor, but by then readers will have become comfortable enough with Atma to comprehend some of its numerous dimensions.

A person is a combination of body, mind, intellect and Atma, consciousness being the enduring or eternal factor. When we look at the world around us, we discern three things: firstly, an object comes into being; then I become aware of it; finally it decays and is consumed or dies. A fruit grows on the tree; I become aware of it; I eat it and it is no longer there. A child is born; I become aware of him or her. A sequence of actions begins as (s)he grows, ages and dies. This process begins with awareness or knowledge, which is followed by the second phase of action — the process of growing, aging and dying. A closer look at the universe indicates that all existence is the interplay of consciousness, action and matter. It may also be expressed as the interplay of mind, matter and motion, or as the interaction of knowledge, process and objects.

OBJECTS AND AWARENESS

An object occupies space, whereas awareness does not. The awareness or consciousness of an object is like light which occupies no space, although the object upon which light is thrown does occupy space. When light falls on an object I am able to see it; if there were no light, there would be total darkness and I would not even know whether there

was any object out there or not. For all practical purposes, the object does not exist in the absence of light because there is nothing but darkness. If I were not aware of any object around me, there would be nothing but deep darkness, because awareness illuminates an object. Knowledge of an object makes its existence known. If all objects are taken away from it, awareness becomes pure consciousness. It becomes knowledge when there is an object in its 'gaze'. Consciousness is self-illuminating, and becomes knowledge only when the object of awareness enables it to manifest itself as awareness. Thus we find three aspects: that of seeing or observing; that of being seen or observed; and that of the one who is observing the object which is being seen.

The vast universe comprises 'objects' which are observed. The process of 'seeing' an object includes observing or coming into contact with it through any of the sense organs. In normal parlance, we say, "I see this object." But if we go into this in greater depth, we find that it is my sense of awareness which 'sees' the object. The sense organs transmit information about the existence of the object to the seat of my consciousness or awareness. This is the knowledge of the object. Thus, knowledge is the seer and the object is the scene (that which is seen). There is a vast canvas upon which numerous objects float at the same time, and this is knowledge. In other words, we have knowledge of numerous objects at the same time, rather in the same manner as a container holds numerous objects at the same time. Knowledge is one and eternal, while the objects are many and transitory.

ACTIONS: INDEPENDENT AND REGULATED

All actions in the world fall into two categories. Some are subject to regulation by human agency while others are

not. Laughing, speaking, walking etc. are all actions which we can regulate, and we are able to decide whether we will perform these actions or not. Other actions are independent of our will. These include coming into being, existing, changing, growing, declining and dying. Clearly we cannot decide whether to take birth or not, nor whether to grow or not. We cannot regulate our change from childhood to youth, and on into old age. And of course we don't have the freedom to decide whether to die or not. Theists describe these six actions or processes as the 'will of God'.

OBJECTS AND PROCESSES

As we investigate these processes, we come to the realisation that they occur only in association with an object. They are in fact dependent upon the existence of an object or objects; while objects, on the other hand, have an existence of their own. Thus there is the fruit, the awareness of the fruit and the process of consumption or 'death' of the fruit. For the purposes of this discussion, we shall treat knowledge, action and object as distinct and separate.

Every object is defined by the matter or substance of which it is composed, by the processes occurring within it, and by the fact that we have knowledge of it. All living organisms and inanimate objects in the universe have their own boundaries of knowledge, action and matter. This means that there are innumerable streams of knowledge, action and matter, and the totality of these innumerable streams is our universe. Every object also has a form, within which is its content as well as its function or functions.

Thus objects all have their own contours of awareness, functions and substance, and it would appear that these contours define objects and are the limits within which they

reside. These are limits of *form* as well as *content* along with limits of *function*. For example, all human beings differ in their form, attributes and awareness. This phenomenon is clearly discernible even in the case of the different organs of an individual. The eyes have a different form, function and content from the tongue or nose. However, there is a common source for all these innumerable streams of awareness, forms and functions, which is described in the *Vedas* as Ishwara.

WHAT IS ISHWARA?

Within the boundary of the form of an object there is substance, and associated with the form and the substance is a continuous process or activity. Activity is a sign of life, and thus nothing is lifeless. Because the *Vedas* enquire into life and its sources, all the terms used in the *Vedas* to explain or elucidate supraphysical factors, forces and energies throb with life.

Let us take Prana as an example. Prana is said to come and go at will. Similarly, in reference to intelligence, we find the description that She (pure intelligence) is shining. This does not refer to a woman somewhere up in the sky, or to some mysterious deity. The reference is to supraphysical forces, processes or energies which act and interact to maintain the universe.

The nature of these forces and processes will become clearer as we proceed. We shall come to know them and to understand the meaning of the terms Devata and *Devi*, which have been incorrectly translated by Western scholars as 'God' and 'Goddess'. This has created considerable confusion and misunderstanding.

Ishwara is described as 'all-powerful', 'all-knowing' and 'all-encompassing' in the *Upanishads*. All awareness

flows from that source, all forms arise from it and all processes emanate from it.¹ Thus, all sentient and inanimate objects are a part of Ishwara, which is the grand totality of all awareness, processes and matter. Ishwara is described more fully in the chapter entitled "The Universe: Inside and Outside".

TYPES OF OBJECTS

Matter is the predominant attribute of some objects, such as inanimate metals and minerals. Both matter and actions are dominant in other objects, such as vegetables, plants and so forth. Then there are objects in which all three components of awareness, action and matter are present; here we find insects, animals, birds, human beings and so on. Only in the human species is the faculty of awareness or knowledge fully developed, which is why human beings are regarded as being the closest to Prajapati in his role as Ishwara.² It is also why knowledge is disseminated only through the human agency — human beings alone are able to encounter and experience Prajapati directly. Human beings are proximate to Ishwara Prajapati, and in fact are a part of it.

However, there are several factors which impede our realisation of Ishwara. These factors are known as Avidya and include ignorance, lack of awareness, attachment and arrogance. The human mind is subject to all these afflictions, as we know. But Ishwara is not, and hence this is what differentiates a human being from Ishwara.³ The *Vedas* instruct us in the method and path to follow in order to free our minds from these afflictions and achieve proximity — and, ultimately, identity — with Ishwara. This is, in fact, the path of Self-realisation, enabling us finally to know and experience who we are.

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- 1 Yah Sarvajnah sarvavit jnanmiyam tapah tasmatedad brahma, namaroop
mannam cha jayate — *Mundaka Upanishad* 1:1:9.
Mamivansho jeevloke jeevbhootah sanatanah — *Bhagavad Geeta* 15:7.
 - 2 Purusho wai prajapaternedishtam — *Shatpatha Brahmana* 2:5:1:1.
 - 3 Klesha karma vipakashaiyaparamrishah purushvishesh Ishwarah — *Patanjali's
Yoga Sutras* 1:24.



*atmaivdeamagra aseet purusha vidhah
so anuweekshya nanyad atmano pashyat
so ahamasmee tyagrevyaharat, tato aham namabhawat
tasmadapyate ahamntrito ahamyam ityewagra
uktwathanyannam prabroote
yadasya bhawati*

In the beginning of this (universe) was the Self alone in the likeness of a human form. Looking around, he saw nothing other than (him)self. First of all he said: "This is I." Hence the name 'I' came to be. So, even now, when a person is addressed, he says first, "This is I", and then speaks out any other names he may have.

BRIHAD ARANYAKA UPANISHAD 1:4:1



CHAPTER SEVEN

The Universe: Inside and Outside



ATMA IS INITIALLY DISCERNIBLE IN TWO STATES, AS a unit and as an aggregate. It is a unit when perceived in one of its many variations and is viewed as an aggregate when all these units are merged. There are several units in one aggregate and when we behold the many units of Atma as an aggregate, each unit is described as a Jeeva. When all the Jeevas are seen together, this aggregate is known as Ishwara.

When a single sun is revealed as numerous reflections in a large number of pools of water, the origin of all those reflections is the original, single sun. Similarly, there are a great many reflections of the one Atma, and the source of these innumerable reflections is Ishwara. The infinite universal consciousness known as Ishwara is symbolised by the term 'Om', and the numerous and unlimited manifestations of that consciousness, known as Jeevas, are symbolised by the term *Aham*.

Every object we see has a physical 'body', a collection of tiny portions called elements, which in turn are a collection of atoms. Each atom consists of smaller units called nuclei, each of these infinitesimal units being a collection of neutrons and protons. Generally, a 'body' is a unit. However, a 'body' can also comprise several 'bodies'. For example, water is a unit and therefore a 'body'. But when water is examined more closely, it is an aggregate of hydrogen and oxygen. Each of these elements is a unit and therefore a 'body', and each atom of these elements is a separate 'body'.

The human body is another example. It is one unit, comprising eyes, ears, nose, hands, feet and so on, yet each of these has a 'body' of its own at another level. We also say that a number of human bodies constitutes the 'body' of an army or of a community.

So when we see several nuclei in an atom as one unit, this constitutes a 'body', and there is a centre of supraphysical energy within each of these 'bodies'. This centre regulates all movement in the 'body', being the source of all motion and the sustainer of all activity. This centre of supraphysical energy, which is the Atma of the 'body', is called Jeeva.

Now let us examine this vast universe which has existed from time immemorial. It consists of innumerable units, each of which is a 'body'. But the entire universe is also a unit in itself and is therefore also a 'body'. It is the macrocosm in comparison to the smaller units which are microcosms. This macrocosm also has a centre of supraphysical energy which regulates it, known as Ishwara. This is the source of the inexhaustible energy which runs this universe.

Since the 'body' of a Jeeva is finite, its energy-source is located at a particular place in the structure, whereas the energy-source of the infinite 'body' of the universe is not positioned at a specific location. In this sense Ishwara is distinctive. The Atma of the 'body' of Ishwara makes its every point a source of energy and locates these sources in its 'body'. That is why the seer-scientists have said that when a body of the supreme Ishwara (Parmeshwara)¹ is visualised, we can assume that every point is heart, head, feet, eyes, ears and so forth at the same time.² One seer describes the form of Parmeshwara as having hands and legs, eyes, heads and mouths on all sides; in other words, Parmeshwara envelops all beings from all sides.

We have conceived of Jeeva as consciousness, in relation to which Ishwara is macro-consciousness. In this respect, there is a similarity between knowledge/consciousness and the universe on the one hand, and Jeeva and Ishwara on the other. But while Jeeva is a tiny drop in the vast ocean of knowledge, Ishwara is the storehouse of the endless, immeasurable totality of all knowledge. There is thus a qualitative difference between the two. Both are consciousness in their true nature, yet Jeeva and Ishwara each have their own respective domains, their own 'universes'.

The field of consciousness of Jeeva is always permeated with its inner universe, and from the raw material of that knowledge it remains continuously engaged in making new inner worlds. It holds these inner universes within itself and dissolves them within itself. Likewise, Ishwara creates the outer world, holds it within itself and dissolves it within itself. While these traits clearly show the similarity between Jeeva and Ishwara, a significant difference between them should be noted, which is that Jeeva always requires a sheath (*Kosha*) at its core whereas Ishwara requires none. The sheaths which sustain Jeeva are: 1. Sense organs; 2. Matter; 3. Mind; and 4. Intellect.

THE FOUR SHEATHS OF JEEVA

Aham, translated as 'Self', resides within these four layers. Jeeva is permeated with knowledge which arises from the senses. My eyes make me able to see, my ears able to hear and so forth. The experiences from different senses vary, but it is 'I' who lives all those experiences, and all that the senses communicate is experienced by the one Atma. On one level there is no connection between my eyes which see and my ears which hear, between the experience of seeing and the experience of hearing. Yet 'I' assert that 'I' have seen or that

'I' have heard, which indicates that the processes of seeing and hearing travel to one central point and become a part of it. Whatever is transmitted to the brain also ultimately travels to this centre, which is Atma; but this is possible only when there is a connection between the senses and Atma.

These sense organs constitute the outermost sheath of Atma, the external layer, and within this there is another sheath. This is the substance or the matter within the shell, the content within the form. The five senses of sound, touch, form, taste and smell are the five attributes of this substance, the traits of the matter contained within the hollow shell of an appearance.

These attributes exist in Atma in extremely subtle measure. The sense organs are unable to transmit these experiences if these attributes are not present in Atma, or if any one of these senses has been destroyed or damaged. For example, people who are colour-blind cannot experience some colours in the spectrum because the attribute related to form or appearance — the attribute of *Roopa* — is absent or has been significantly weakened. Similarly, someone may fail to recall past experiences following a brain injury. It has been ascertained that the forms or shapes which travel to our eyes through our senses come in contact with the firm and enduring attribute of *Roopa* (form, shape or appearance) inside and reach the centre of Atma. This internal sheath 'filters' what the eyes see, because the sheath of the substance or matter within the shell is located within the sheath of the sense organs. On the surface, as it were, is the layer of the senses and underneath that is the layer of the matter experienced by the senses.

Within the sheath of matter is the third sheath, that of Mana. This approximates the meaning conveyed by the word 'mind'. We often fail to notice an object directly in front of our eyes; we are simply unaware that it is there. This happens

if our mind is elsewhere. At one time or another all of us have said to a friend who is talking to us, "Oh, sorry. Will you please repeat what you just said? My mind was elsewhere and I didn't hear what you said." Thus we gain knowledge of an object only if this third sheath of mind is in good order. The awareness of external objects initially travels to the mind and then reaches Atma. If it does not travel to the mind, it will not reach the centre or Atma. But Mana, or mind, functions only through the mediation of the sense organs and the matter or substance comprising that particular object or entity. Mind is the third layer, the third filter to facilitate cognisance, within which is the sheath of intellect.

You may make a presentation on a subject to an audience of 10 people, and you will doubtless find that your statements have been understood somewhat differently by each person in your audience. Ten different levels of knowledge are produced, because intellect differs from person to person. One whose intellect is sharp grasps the subject more quickly than one who has a slower comprehension of the subject-matter. Irrespective of the effort expended, a less intelligent person fails to grasp a subject with the same speed and accuracy as someone possessed of greater intelligence. Mind moves on the basis of the intellect and creates knowledge in Atma accordingly. The intellect is a kind of consciousness and Atma, as we have stated earlier, is also a form of consciousness. The intellect is intimately related to Atma, with no barrier between the two. Pure knowledge, as an attribute of Atma, is like pure energy. It is unmanifest. The same pure energy is transformed into electricity which becomes associated with and propels, say, an electric fan, lights a fluorescent tube or activates a refrigerator.

Similarly, when Atma moves towards and becomes associated with the intellect, it is transformed into the

knowledge of that intellect's object. The intellect has limits, being contingent upon learning in childhood and subsequent education and experience, whereas Atma is pure knowledge. It is consciousness without any frontiers or limitations. In the vast unlimited sky there are numerous objects and entities, each with its respective limits. But the sky gathers all of them in its embrace and continues to gather new entities within its fold as and when they come into being. In the same way Atma, as pure consciousness without any limits, gathers all units of intellect within its embrace (if we consider the intellectual equipment of every Jeeva as a unit) and will continue to do so as new units come into being.

Although the intellect, mind, matter and sense organs are inanimate, they appear to be illumined by virtue of the 'light' of Atma. The four sheaths and Atma are as closely related to each other as illumined objects are to that which illuminates them. Such is the bond between them. Atma remains bound to all four sheaths until they all leave the 'body', hence the appellation of the 'four sheaths of Atma'.

To summarise, the four sheaths are like four layers or coats covering an object. The sense organs are the outermost coat or external sheath, beyond which is the matter or substance which these senses define. Underneath this layer is Mana or mind, and the fourth coat is that of intellect (*Buddhi*). These four — the sense organs, substance, mind and intellect — can be visualised as sheaths within a sheath, like four containers placed one inside the other.

So matter is beyond the sense organs, and mind is beyond matter. The intellect is beyond mind, and the Atma is beyond the intellect.³ The intellect, mind, matter and senses are so closely interconnected with Atma that the manifestation of one results in the manifestation of the others, and the disappearance of one causes the others to disappear.

Given this insight, the view that animals do not have Atma, intellect or mind is erroneous. Animals have a sense of form and colour. They also have mind, because we can see them reacting to pain and pleasure. They have an intellect that can be developed with training, and they can discriminate between what is harmful for them and what is beneficial.

Thus, all four sheaths are discernible in all living beings. But none of these sheaths is to be found in Ishwara. While the sheaths and Atma are tied to each other, Ishwara is limitless and so cannot be tied to anything. Unlike Jeeva it has no sheaths, layers or coats, and the same is true of Parmeshwara.

Ishwara has neither intellect, mind nor sense organs, yet this does not mean that it cannot discharge the functions performed by Jeeva's four sheaths. Its total independence from any bonds means that even without sense organs Ishwara can see, listen and hear, think and understand with every point in its body.⁴ The seers have described Ishwara as one without hands or feet but with agility and grip; without eyes and ears but who nevertheless sees and hears. Knowing all and yet itself unknowable, Ishwara is named the 'Supreme Being'.

Jeeva's power of thinking can develop infirmities resulting in errors, in contrast to which Ishwara's power of thinking does not decline and is free from any distortion or defect. The capacity of our senses, mind and intellect are limited, but Ishwara's endowments are unlimited. And there is another significant difference: while human beings are sometimes able to gather knowledge of an object with the aid of the sense organs, at other times we are unable to do so. To gain knowledge of an object, we need to initiate the process of making an appraisal of that object. Ishwara, on

the other hand, does not have to initiate the process of knowing an object with the aid of sense organs or the mind because an object remains in the same form in which it has come to be known by Ishwara. It remains the same from the beginning of creation to the end. An object becomes exactly what Ishwara knows it to be, and will remain the same in the future.

This is because Ishwara's knowledge *is* the existence of an object, and no object is unknown to it. Thus, Ishwara does not need to initiate a new process of knowing something. Jeeva finds it necessary to accept some objects and entities and reject others, due to its fundamental incompleteness. In contrast, Ishwara is complete, so that nothing can be added to nor taken away from it. It neither rejects nor renounces anything. Nothing is unavailable to it, and it needs expend no effort to obtain anything. Despite this, however, it continues to know and act.⁵

Since all entities in the world are changeable, a natural alteration in the state of Jeeva occurs when the forms of entities change. The process of change — of destruction and new appearance of matter, of its death and birth — is eternal, and this accounts for the infinite number of Jeevas in this universe. In contrast, Ishwara is one and indestructible.

FORM, FIELD AND MASS

All 'individuals' have three dimensions. Let us take the example of the sun. The shining ball we call by that name is at the centre of a field of light, within which are located Saturn, Jupiter, Venus and the other planets. The form of the sun — the round shape at the central point — is known by the technical term *Uktha*. The field of light surrounding it is called *Arka*, and the substance within that field is named *Ashiti*. Jeeva should be visualised in a similar

manner, as having a shining point at its centre (Uktha), a field of consciousness (Jnana) permeating from that centre (Arka) and various shapes floating in its field of consciousness (Ashiti).

If there were no earth, the field enveloping it would not exist, nor would the rays of the sun which travel to us through this field. Without sunlight, the sun itself would as good as cease to exist. Likewise, knowledge acquires its form from the objects in the inner universe. If the universe lacked even a single object, knowledge or consciousness would not exist. If the light of knowledge were absent, no individuals would exist and even if they did, it would be as if they did not. Just like the mass of the earth or other entities which exist in the supraphysical field emanating from them, the inner worlds can also be described as Ashiti.

Ashiti is that which enables Arka to exist. Everyone's Atma consumes some 'food' from the body in order to sustain itself, and this is Ashiti. Arka is that in which this consumable food is gathered; it arises from a central point and seeks food from that same point. The central point from which Arka arises is Uktha. The centre of Jeeva is Aham (Self), from which the field of awareness extends in all directions and gathers 'food' in the form of objects, bringing these to Uktha or Atma. Knowledge is Arka, while the Atma from which the consciousness arises is Uktha. Thus, Jeeva is also three-dimensional.

THE INNER UNIVERSE AND URGES

Kama may be translated as 'longing', 'desire' or 'urge'; it is the impulse or strong drive to gain or possess, to enjoy or acquire an object or an experience. (We shall be using the translation of *Kama* as 'urge' here.) All the inner worlds in consciousness are products of the urge (*Kama*) of Atma,

which is the main reason behind the emergence of these inner worlds. The sequence is approximately as follows: Mana, Prana and Wak are always present in Jeeva. Initially, Mana gives rise to an urge and Prana activates the effort to realise it. Finally, motion occurs in the Wak portion of Atma, giving rise to activity in matter.

The urge is the principal cause of the origin of all that arises from Atma, and Jeeva is permeated with urges, all of which are 'food' for Atma. When actions are performed without an urge, Jeeva loses its separate identity and is ultimately subsumed in Ishwara, which is its foundation. Ishwara is the source from which it emanates. For example, water turns into foam and, when the causes of this process cease, it is transformed back into water. Likewise, when Atma is freed from urges it becomes Ishwara; the 'food', in the form of urges, is no longer available to it and so it does not become Jeeva again. Various symptoms of Jeeva, such as birth, death and so on arise because of urges, so that when they cease the fetters of birth and death vanish. This is described as liberation or emancipation.

Ishwara is also permeated with urges, but there is a qualitative difference between the two classes of urge experienced in Jeeva and in Ishwara. Jeeva's urges are transitory, arising and fading away. Jeeva cannot evoke all urges because its intellect has limitations. Ishwara's urges, on the other hand, are eternal; it remains the same and does not fade away. All urges remain ever-present in its consciousness. If Ishwara were to forget its urges, the world would be destroyed. Therefore, Ishwara is one whose urges and wishes are always fulfilled, and in the fulfilment the urges themselves vanish. Since Ishwara's wishes are always fulfilled, it is described as one who has no wishes or urges. This is the principal difference between Jeeva and Ishwara.

OTHER DIFFERENCES BETWEEN JEEVA AND ISHWARA

Every Jeeva has access to the universe within its field of knowledge, yet is unable to access the world contained within the field of knowledge of another Jeeva. Ishwara's field of knowledge, however, is continuously in touch with the fields of awareness of all Jeevas. Since all Jeevas are included in the inner universe of Ishwara, the inner world of a Jeeva is never outside Ishwara's field of awareness. Thus, Ishwara is described as a witness (*Sakshi*) to all that goes on in the world of Jeeva.

Differentiation arises among various Jeevas because they are born and they die, they suffer and feel happiness. No such differentiation exists in Ishwara. We can, therefore, say that Jeevas are many, but Ishwara is one.

Objects conceived in the inner world acquire the same name and form as those objects in the external world. But sometimes our inner Atma is able to conceive of new objects which are different from any in the outer world. When this happens, some confusion or doubt appears, because a part of the knowledge of an object is in consonance with the external world while another part of it is imaginary.

Our Atma may also create its inner world independently of the outer world. It then endeavours to shape the external world according to this created inner world. For example, objects such as houses or chairs did not exist in the external world until they were created in the inner world by an architect, a carpenter and so forth. An object in the inner world is the property of Jeeva, and goes on to become the property of Ishwara.

Atma is also able to create an inner world according to its own fancies and wishes. For example, new

ideas emerge in the mind of a poet, to which (s)he gives a form. A delusional person may create a kingdom in his or her own mind and rule over it. We often create our own inner world during sleep: in dreams we may fly in the sky, or see ourselves lying dead; we may see the head of an elephant on the body of a snake. In all these cases, something which does not exist in the outer world floats in the inner world, and this is within the capacity of Jeeva.

Jeeva's field of knowledge has the same relationship to Jeeva as the illumination emitted from a lamp has to the flame of that lamp. The illumination can be covered or shifted from its location only when the lamp is covered or moved. Likewise, Jeeva's knowledge can be grasped only when its source is brought under control by cleansing the inner Atma.

Jeevas are unlimited in number, so if one Jeeva is ignorant, ailing or dead this does not mean that the other Jeevas follow suit. Just as other lamps continue to burn when one among their number is extinguished, so also do other Jeevas continue to exist when one among them dies. Just as the light from an extinguished lamp dies, so is the field of awareness of a dead Jeeva destroyed.

In the case of Ishwara, however, the external universe is an object in its field of awareness. Therefore, if Ishwara were to be destroyed, the world would possibly also be destroyed. But since Ishwara is eternal and imperishable, the objects in the external world are neither destroyed nor displaced, and the wishes of Jeeva make no difference to them. Therefore, even when a Jeeva dies this world continues to float in its eternity, and its form is indestructible. Thus, both Ishwara and the universe are eternal and essentially indivisible.

THE SEPARATE IDENTITIES OF JEEVA AND ISHWARA

All entities which depend on comprehension (*Chitta*) have an existence separate from the faculty of comprehension. For example, insight (*Prajnya*) rests on comprehension, but is itself a separate factor. Insight draws on comprehension, but would be unable to do so were it not a separate factor.

When the identities of two individuals are entirely different, the reflection of one can be seen in another. For example, the identity of the sun is quite different from the identity of water, yet we can observe the reflection of the sun in water. In a similar way, we can observe the reflection of comprehension on insight precisely because the two have separate identities. When Jeeva conceives of a world in its field of awareness, its relationship with this world is unlike that of the clay with the pot. The identity and existence of clay are the identity and existence of the pot. Therefore, the identity of clay cannot be superimposed on the identity of the pot. (This example will become clearer a few paragraphs later, when we discuss the relationship between awareness and object.)

Knowledge acquires a separate existence when it is created in the field of the inner universe, surviving as memories in consciousness. My sense of awareness can apprehend that universe, but if the identity of my inner universe were not separate from my field of awareness, the latter would not be able to see it. Therefore, this entire inner universe which is produced from the field of awareness of Atma remains forever absorbed in Atma. It has a separate existence and is permeated with Atma, even though it emanates from Atma. Even after the formation of numerous inner worlds, Atma remains as it was before their formation, experiencing no diminution.

ATMA AND THE INNER WORLD

The other surprising feature is that the inner world is so intertwined with Atma that it has no existence — even for a moment — apart or detached from Atma. Yet Atma is totally detached from the inner world. The sky does not get wet even in a torrential downpour; the rain falls out of the sky, but the sky remains detached from the rainwater. This is like the relationship of the field of awareness to the inner world. Moreover, the relationship between the awareness of Ishwara and the outer world is similar to the relationship between Jeeva and the inner world, which is why the identity and existence of the universe are said to be separate from the identity of Ishwara.

AWARENESS AND OBJECT

When we see a pot, the pot itself and our knowledge of the pot are so intertwined and identical that it is difficult to separate the pot from our awareness of it. But when our awareness 'leaves' the pot and transfers to another object, it abandons the pot completely and thoroughly. When a red flower is placed near a transparent crystal, the latter appears red; yet when the flower is removed the redness in the crystal disappears as completely as if it had never been there. The relationship between our awareness and objects should be understood in this way.

If the existence of the universe is separate from the existence of awareness, it is pertinent to enquire how and from where the universe — being a product of awareness — acquires awareness. This question has been answered in three different ways.

Firstly, the universe exists because of awareness. In other words, the existence of awareness is the existence of the universe. When awareness disappears or is destroyed, the

existence of the universe also disappears. The universe is awareness having assumed a form. There can be neither a universe without awareness, nor awareness without a universe; the universe is a by-product of awareness.

The second view challenges this contention that the existence of the universe is due to the existence of awareness. Proponents of the second view assert that this proposition could only be tenable if the universe were made from awareness, much as a pot is produced from clay, cloth from cotton, curd from milk, and milk from grass or cattle-feed. We know that when milk is produced, grass or fodder cease to exist, and when curd is made no milk remains. But when the universe comes into being, awareness does not disappear; instead the universe continues to exist in awareness.

Therefore, according to this viewpoint, the universe is created in awareness in the same manner as foam is made of water — albeit with a difference. Some water is consumed when foam is made, so that the quantity of water diminishes with the formation of foam. Water also loses its original form when foam is produced. But nothing like this happens in the case of awareness. When the universe is created, it brings about no distortion in awareness nor does it diminish it. So it is not correct to say that the existence of the universe is dependent upon the existence of awareness. We can say that the attributes of name, form and functions arise abruptly in the universe, which is created in awareness. An object can appear to be red or black, but the colour is not there in the awareness and its appearance is inexplicable. Just as form — that is the colour — arises in the object abruptly even while it is not present in awareness, so is it possible for existence to arise in awareness. With the disappearance of awareness the form of an object vanishes, and with that the existence of that object also vanishes.

Proponents of the third view use the example of snake and rope. We see a rope and mistake it for a snake. So a snake arises (as illusion) in the rope, but that snake is unreal and does not exist. A mere illusion is created in the existence of the rope, which manifests in our awareness as a snake. According to this view, the universe is an illusion that has occurred in awareness. Its existence is merely illusory and therefore unreal. This viewpoint has held sway in some schools of Indian philosophy for a considerable period.

THE SEQUENCE OF CONSCIOUSNESS AND EXISTENCE

The word Jnana has several layers of meaning in the *Vedas*. It means 'awareness', 'consciousness' or 'knowledge'. In its raw form it is awareness, and in a stabilised form it is knowledge. In its pure form, when it is not associated with objects, it is consciousness.

Whether awareness or existence came first has been a subject of animated debate amongst philosophers and seer-scientists. According to one view, the universe is permeated with existence, and existence is denoted by the verb 'to be'. The universe 'is' — this statement denotes its existence. And this 'is' is called the universe. This universe came into being due to awareness, and so we can conclude that awareness came first and existence followed. The existence of the outer universe is the function of the awareness of Ishwara, while that of the inner universe is under the domain of the awareness of Jeeva. In other words, there can be no existence without awareness, and so it is correct to state that awareness precedes existence.

According to another view, although cause precedes effect, awareness and existence are so completely interconnected that it is impossible to visualise one without the other. If there is

no existence of the pot in the external world, there can be no awareness of the pot. For awareness to arise, it is necessary that an object should exist externally. So proponents of this view assert that existence precedes awareness.

Others put forward the view that it is difficult to decide the sequence of awareness and existence because awareness of an object is its existence. A pot exists; this is its awareness. Without 'is', awareness does not acquire a form. And without awareness there is nothing like the existence of an object. So existence and awareness are one. Protagonists of this view assert that it is mere fallacy to describe one as occurring earlier and the other later.⁶

CONCLUSION

An examination of these viewpoints leads us to the conclusion that there is one universe, which is autonomous and not regulated by Jeeva. The other universe is created in the awareness of Jeeva and is under its domain. Apart from these two universes, there is Jeeva itself which is subtle, fine, minute (in terms of time and space) and limitless. The innumerable Jeevas have Ishwara as their master, and Ishwara is consciousness. While Jeeva is akin to Ishwara in terms of consciousness, it is akin to the universe in terms of existence and limitless diversity.

There is nothing outside the threefold combination of the universe, Jeeva and Ishwara. This is three-dimensional reality, also described as the triple truths. Of these three fundamental Tattwas or principles, Ishwara is the chief Tattwa. Jeeva and the universe remain beneath it, serving it and singing its glory.

In the category of truths, however, Jeeva is predominant, because 'I am' is the first encounter with truth, or the first experience of reality. Jeeva, being the manifestation of 'I am',

is thus the first to prove itself. It is a self-referred entity. The truth of the inner universe is dependent upon Jeeva's field of awareness. The existence of the inner universe is dependent upon the existence of the external universe, which is related to Ishwara. Only by realising the truth of Jeeva do we realise the truth of Ishwara, and we achieve this by realising the truth of the universe. Thus, these three remain completely interconnected; one cannot exist without the other.

Various schools of Upasana have propounded different paths aimed at the objective of experiencing or discovering this reality. Vedic literature uses the term 'Upasana' for this pursuit, which is often translated as 'worship'; but it has deeper nuances. Let us briefly reflect on the meaning of this term.

UNDERSTANDING THE MEANING OF UPASANA

In the *Vedas* the term 'Upasana' conveys an important aspect of experiencing the process of creation, or a device to encounter Truth, to experience Reality.

In order to comprehend the nuances of this term, we need to begin by reminding ourselves of the two significant terms Rasa and Bala, which we have met before and which signify the subtlest factors in the process of creation.

Rasa is always quiet; it remains in the same form without change because there is no motion in it. Yet it acts as the support of Bala, which has incessant activity and is motion incarnate. Bala may be visualised as the first ferment of primordial supraphysical energy. It is never without activity and the effects of activity. A 'knot' is formed when several Balas coincidentally meet at one point and become intertwined, and this is known as a 'central knot' or a 'heart-knot'. Because of its state of incessant ferment, Bala becomes excited and is soon exhausted. It leaves the imprint of that excitement on Rasa which is

internalised and becomes Rasa itself. Therefore, Rasa is at the centre when a heart-knot is formed by the confluence of several Balas at one point and that kind of Rasa is called Atma. From this knot arises the concept of the bondage of Atma. To become free of this bondage or knot is known as emancipation or liberation. Bondage arises in the presence of motion. As Atma itself has no motion or activity, it is not intrinsically tied in bonds, but merely appears to be so because of Bala.

Another knot is formed when another Bala is placed at the point where a knot has already been formed in Rasa. The second Bala does not combine with the first, so the subsequent knot is separate and is also untied separately.

Bala passes through two states when applied to an individual. Initially, no knot is formed when Rasa is placed on something; Bala merely expends its excitement and is destroyed. So when pure Bala descends on Rasa, no knot results. However, when Bala and its Rasa descend on an individual object, a knot is formed. At a primitive level, the continuous interaction of Rasa and Bala is reflected in the transformation of liquids into solids and vice-versa,⁷ such as water becoming ice and ice becoming water again. When we throw a ball up into the air, it rises to a certain height before exhausting its momentum and stopping its upward flight. Its Bala has spent itself at this point. Similarly, when an arrow is fired it flies in an arc until the Bala in it is spent, when it begins its descent.

If we heat sand and fuse it with soda, lime and other ingredients, it becomes glass. The form of the sand is changed due to the application of Bala. The glass is a result of knots being formed on top of the earlier knots. If those knots in the glass were to be carefully untied, or if they were to open of their own accord, there is a possibility that the

glass would become sand once more. And if the knots were untied even further, we may ultimately obtain the ingredients from which the glass was made. This process is the opening and closing of supraphysical 'knots'.

(It will help us to understand this process if we recall that some 'cement' or 'bridge' is needed to keep atoms together. What holds them? They are held by the bonds formed by outer electrons in various atoms. A solid is made by bringing together a large number of atoms. When they are brought together, they stay together and do not fly apart.)

The untying of the central knot or principal bond equates with the emancipation of Atma from bondage. Because of the presence and support of Rasa and Bala, Atma spontaneously manifests as the universe. It later unties itself from bondage with the universe, assuming its original form of pure Atma. Thus, the same Atma may take the form of the universe or may assume its own form. These are different states of the same factor.

Initially Atma is indivisible, all-pervasive and uniform. It acquires different forms because of the knots formed by the ties of Bala. Depending on the quantity of Bala, it manifests in various shapes and forms. But this number is not unlimited. What was indivisible is now divided. Each unit is, as it were, wrapped in a case and several divisions arise in that Atma by this process.

Another individual arises in the individual made of the first knot when another knot is tied; yet another individual will arise when yet another knot is tied. Thus, several individuals are created in the Rasa, which itself is one. From one drop of water arise germ, sprout, seed, branch, leaves and fruits, yet in all these 'creations' Rasa itself has not changed; only Bala has changed. Ever new Balas have been added, one placed on another.

This continuous sequence of knots and ties evolves into an individual, an entity, which we describe as the universe. As the successive knots of Bala are untied, step by step, the individual returns gradually to its original form. Ultimately freed from all bondage, only pure Rasa remains, with all the Balas lying quietly on its calm surface without any knots. This state is described as the emancipation of Atma, in which state it remains in its pure form or in the form of Rasa.

Conversely, as knot upon knot piles up, Atma takes the form of Mana, Prana and Wak. As this process continues, space, air, sun, water, earth, minerals, vegetables, trees and the bodies of sentient beings are created. Atma becomes wrapped in the bondage of the body. All of these objects mentioned comprise matter, so the entire process we have just described can be visualised as the making of matter from energy.

What was vibrant in the beginning and possessed some consciousness becomes inert because of the multiplication of Bala. But Bala strives for emancipation by entering the body and developing consciousness. If consciousness is developed gradually, the stage of pure Rasa is attained from the gross state of the body. What is encased in the body and experiences happiness on some occasions and unhappiness on others transmutes into the state of supreme bliss. So complete emancipation can be attained if special efforts are made, and the seed of bondage can be completely removed. The processes of the formation of knots and the piling of one knot upon another can be stopped forever. This special effort is described as Vijnana, which ensures that bondage does not recur. Complete emancipation is possible with complete Self-realisation, this being the path of attaining total knowledge of Atma. However, because it is extremely difficult to realise Atma (to become Self-realised), an easier path has been charted which is the path of Upasana.

While Jeeva's mind is unstable and volatile, the mind of Ishwara is totally tranquil and motionless. This is because Jeeva's awareness is limited and is wrapped in ignorance (Avidya). Causes of fear, sorrow and unhappiness arise in the awareness of Jeeva from this state of ignorance, whereas Ishwara's awareness is all-pervasive and unvitiated by ignorance. Since the causes of sorrow, unhappiness and so forth do not arise in it at all, its field of knowledge remains stable and harmonious.

If Jeeva can regulate the tendencies of its mind by practising Yoga and thus make its mind stable, it merges with the mind of Ishwara and both achieve complete harmony. This is the meaning of Upasana. In the practice of Upasana, the mind of Jeeva settles in the mind of Ishwara and ultimately becomes a part of it; this is known as *Bhakti* — becoming a part of Ishwara. *Bhakti* is often translated as 'devotion', but from the above explanation readers will see that the word 'devotion' does not convey all the nuances and signification of *Bhakti*.

Imagine that you are looking at a pool of water, in which there is the reflection of your eyes. As you look at the reflection, it is reflected back in your eyes. When the eyes are steady but the reflection in the water wavers, the two cannot be in harmony. But if the reflection is steadied and the eyes are also steady, harmony is attained. This is the process of Upasana, and it becomes *Bhakti* when the reflection of your eyes in the water travels back and etches its own reflection in your eyes. If this is practised in a disciplined manner, Ishwara's light of awareness falls in great measure on the awareness of Jeeva, generating yogic powers. The magnitude of awareness in Jeeva increases dramatically when it is conjoined with the all-knowing Ishwara. This process reveals the power of Yoga.

There are three types of Yoga: *Karma Yoga*, *Bhakti Yoga* and *Jnana Yoga*. Action and knowledge are two principal aspects of Ishwara. Therefore, if Jeeva so wishes, it can gain Ishwara and Parmeshwara by the path of action (*Karma Yoga*) or, alternatively, submerge in it by pursuing the path of knowledge (*Jnana Yoga*).

The process of establishing communion with Ishwara is Yoga, which is actually the process of Jeeva entering Ishwara. If this entry is achieved by knowledge and action blended together, this is what we call *Bhakti Yoga*. Of these three types of Yoga, great importance is given to *Karma Yoga* because this enhances the power of action of Jeeva. With the enhancement of this power, a person is able to realise his or her potential in much greater measure. *Bhakti Yoga* is a simple method, enabling us to acquire the ability to attain *Jnana Yoga*, which in turn makes it possible for Jeeva to merge its limited awareness with the total consciousness of Ishwara.

The main objective of *Upasana* is to join Jeeva with Ishwara, which is done in one of two ways: by joining a part of our *Atma* with *Paramatma*⁸ or by joining a part of *Paramatma* with a part of Jeeva. In both of these methods the limited Jeeva surrenders totally to Ishwara, which is complete and whole, and this surrender is the principal form of *Upasana*. Since this entire world is the handiwork of Ishwara, when a Jeeva surrenders the product of its handiwork — discernible in the form of the outer universe — it surrenders its awareness to Ishwara's awareness; this is the first form of *Upasana*.

Knowledge of the origin, existence and demise of an object and their interrelationship is called *Vidya*; and all this knowledge is a manifestation of Parmeshwara, the supreme Ishwara. The more we acquire these *Vidyas*, the more we come in contact with the manifestations of Ishwara. In other words, we bring our *Atma* in contact with the *Atma* of Parmeshwara.

If it were possible to acquire the knowledge of every object in the world, then our Atma would become one with Parmeshwara's Atma. But this can never happen, because it is beyond the capacity of human beings to acquire such a total knowledge. An easier way for a human being, therefore, is to come to understand his or her Atma, which is composed of the collection of small amounts of the numerous supraphysical energies which make up the universe.

Since our Atma is a tiny aggregate of all supraphysical energies, by coming to know it we know the entire universe. When we understand the microcosm, we can understand the macrocosm. If we comprehend our own Atma correctly, we know the entire universe, and there is no other manifestation of Ishwara apart from the universe. To know the universe, therefore, is to know Ishwara. Our Jeeva becomes permeated with the consciousness of Ishwara until there is no differentiation between the two. This is the form of Upasana attained by pursuing the path of Jnana Yoga.

Karma Yoga, Bhakti Yoga and Jnana Yoga are the paths of Upasana. Even if we cannot apply our mind fully and wholly to this journey, we can at the very least walk a short distance upon these paths. For even a short walk is of immense benefit; the Sanskaras, or habitual tendencies, that we form by taking this route leave their imprints on our Atma, so that forward movement on these paths becomes easy and spontaneous in the future. A powerful impulse to continue moving on these paths also arises in us. All forms of Upasana increase the strength of the Atma of a Jeeva. A feeling of unhappiness at the time of Upasana is an indication that one is not performing Upasana properly, and one should seek the guidance of a Guru, an accomplished master.

Let us briefly summarise. The entire universe is made of the two subtle supraphysical ingredients of Rasa and Bala.

While Rasa remains quiet and uniform, Bala is constantly in ferment and takes numerous forms. Although Rasa and Bala have such contradictory attributes, they are not separate from each other, and the universe is formed in their coming together. When heaps of Bala pile on Rasa a knot emerges, called the 'heart-knot'. If Bala alone descends on the knot, it merely causes excitement; but when Bala comes with Rasa, another knot is formed, and so the process continues. When these knots are untied it is possible to go back to the original form. Rasa is called Atma, and this knot causes the bondage of Atma. To be free from this bondage or to untie this knot is emancipation, which is the greatest of achievements.

That which is without beginning or end, without limits, all-pervasive, quiet, harmonious and permeated with awareness is called Rasa, Atma or Brahma. Bala, on the other hand, is a unique ingredient which has a beginning and an end, is bound by limits, is encased, in ferment, full of darkness, having many forms and remaining submerged in Rasa. This unique ingredient is also known as Maya.

The emergence of Bala in Rasa is *Srishti* or creation, and the submergence or dissolution of Bala in Rasa is called *Pralaya* or dissolution. In the process of creation, Bala is so intertwined with Rasa that Rasa appears to be tied to Bala. So many piles of Bala collect in Rasa that the entire world appears inert. When Bala becomes very weak, Rasa — which is full of consciousness — begins to assert itself and becomes discernible. This is described as awareness or consciousness.

Consciousness is life. Individuals who possess consciousness are alive, as we know. In some living beings Bala is so weakened that consciousness, which is a manifestation of Rasa, is very clearly visible. Such beings are called human beings. In humans, consciousness increases to such an extent that a human being develops the capacity to

make efforts to liberate himself or herself from the remnants of Bala, an effort known as Vijnana. If awareness of Atma is attained fully and completely, the bondage of Bala is broken even though Bala may still be present. This self-awareness, or Self-realisation, is emancipation. But because this path of knowing Atma is extremely difficult, the easier path of Upasana has been developed to help us.

A deeper analysis reveals that there is a Parmeshwara in addition to Jeeva and Ishwara.⁹ Having now acknowledged these three as fundamental and unchanging realities, we continue our investigation.

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- 1 For a detailed elaboration of the three terms used here, see the chapter entitled "Jeeva, Ishwara and Parmeshwara".
 - 2 *sarvatah pani padam tat sarvatokshishromukham sarvatah rutimalloke arvamavritya tishthati* — quoted by Pandit Madhu Sudan Ojha in *Brahma Vijnana*, p. 78.
 - 3 *Indreyabhyah Parahyarthah Arthebhyash param manah manasastu Parabudhir yobudheparatastu sah* — Bhagavad Geceta 3:42.
 - 4 *apanipado javanograheeta, pashyatya chakshu sa shrinotkarnah sa vetti vaidyam na cha tasya vaita, prahutamagyam purusham puranam* — Pandit Madhu Sudan Ojha, *ibid*, p. 81.
 - 5 *Na me parthasti kartavyam trishulokesh kinchana nanavaptaavyam varta eva ch karmani* — Bhagavad Geceta, 3:22.
 - 6 *Nainam vacha na manasa, praptum shakyon chakshusha asteetibruvatonyatra, katham taduplabhyate*
^v *asteetyevopalanbdhsyastatva bhavennachobhayoh asteetyevoplabdhasya, tatbhavah praseedati* — Pandit Madhu Sudan Ojha, *ibid*, p. 93.
 - 7 In the past, solids and liquids were often treated as separate entities, leading to solid state physics on the one hand and liquid state physics on the other. Nowadays, the two are treated together under the name of 'condensed matter physics'.
 - 8 Atma is to Parmatma what Jeeva is to Ishwara.
 - 9 Please see our chapter "Jeeva, Ishwara and Parmeshwara".



*ko addha veda ka iha vochat
kuta ajata kutam ayam vishrishtih
awakdeva asya visrjanena
yatha vedavatam ababhoova*

Who knows truly?
Who can declare whence it cometh
And whither it vanishes?
The supraphysical energies were released much later.
Who then knows whence it has arisen?

RIK VEDA 10:129:6

An exploration inside the supraphysical universe takes us step by step to subtler levels of reality. Our senses are the primary tools with which we grasp that reality. We rely on the sensitivity of our mind and the capacity of our intellect to comprehend new levels of subtlety and complexity. As we continue the exploration, we live through an experience of one veil being removed, then another and then another. And the process continues. At each stage in the process, questions arise and doubts surface. The seer-scientists anticipate these questions and seek to provide answers. But in a deeper sense this exploration is a dialogue with our Self. The questions arise within and the answers come forth as our experience deepens and the journey continues.

Author's Note



CHAPTER EIGHT

Inside the Supraphysical Universe



VEDA IS THAT 'SUPRAPHYSICAL SUBSTANCE', A DIFFERENT order of energy, which enables us to know an object. It is the awareness of an object, which provides the 'proof' of the existence of that object. An object floats in our awareness and therefore it exists. We can also say that since it exists, it floats in our awareness. The basic cause of awareness and existence is Veda, and the word Veda grows from the root Vid, meaning 'knowledge' and 'existence'. In other words, that due to which a thing is known is Veda.

Everything in the universe is a composite expression of the three Vedas of Rik, Sama and Yaju. Every object has its own Rik, Sama and Yaju. Sama generates numerous invisible circular fields around an object, each of which spans 360 degrees and is larger than the previous field. The total 'space' occupied by the smaller circles which are closest to the object is much less than that occupied by the larger circles which are further away. The largest circle is located at the point which marks the boundary of the visibility of that object. The object becomes visible when we tilt towards the object on the side of the boundary line nearer to us. As soon as we move our gaze to the other side of the boundary line, the object becomes invisible.

The entire space between the boundary line and the back of the individual object is permeated with Sama. Let us divide the whole of this Sama into 1000 units. The individual object is encircled by the Sama waves, like sound waves, and is located at their centre. None of these 1000

Sama circles is visible to the naked eye. However, that particular object remains visible for as long as our eyes are within the space occupied by these circles. It cannot be seen when our eyes turn away from that space of which a Sama circle is made. So if we keep our eyes within the Sama space, that object remains visible in some form. The Sama space is entirely permeated with the 'substance' of the object. Just as a water tank is full of millions of water drops so that wherever we place our hand we find water, so is the sea of Sama full of numerous forms and shapes of that 'substance', the Rik. Wherever we direct our gaze, we observe the form which meets our eyes at that particular point. But there is an interesting difference, because while all the water drops in the tank are similar, the 'substance' in this sea of Sama takes various forms and sizes.

The forms within each of the 1000 Sama circles are equal, but the forms in the fields of the outer circles are smaller than those in the inner circles. The biggest form is that which we feel when we touch the individual object with our hands. The smallest form is that which appears almost like a point on the extremities of the Sama circle. These numerous forms which fill the sea of Sama are known as Rik.

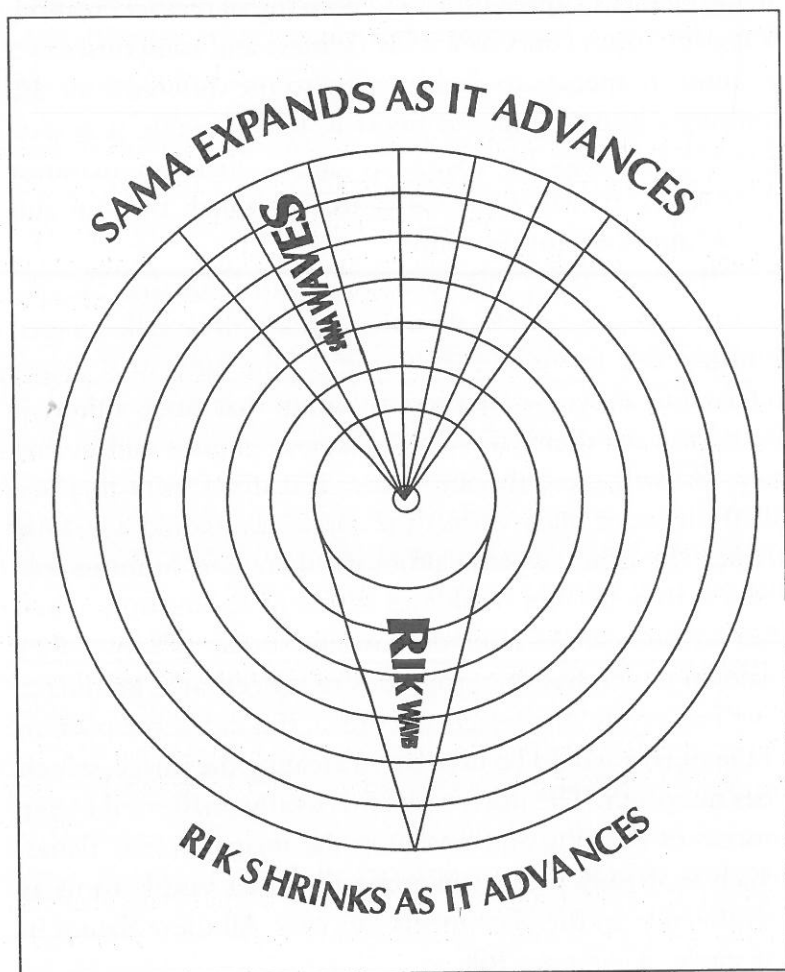
All that glows indicates the presence of Sama.¹ For example, the sun, stars and a lamp all have the property of brightness. Irrespective of its type, Sama causes the glow or brightness in these individual objects, and a certain portion of the glow remains like a flame at the heart of the source. Rays radiate out from this centre in a circle, without causing any obstruction or difficulty for anyone moving within that circle. But the circle of light remains firmly linked to the flame at the centre. We can remove the light only by removing the flame. The light can also be increased or reduced by increasing or reducing the flame. Every individual

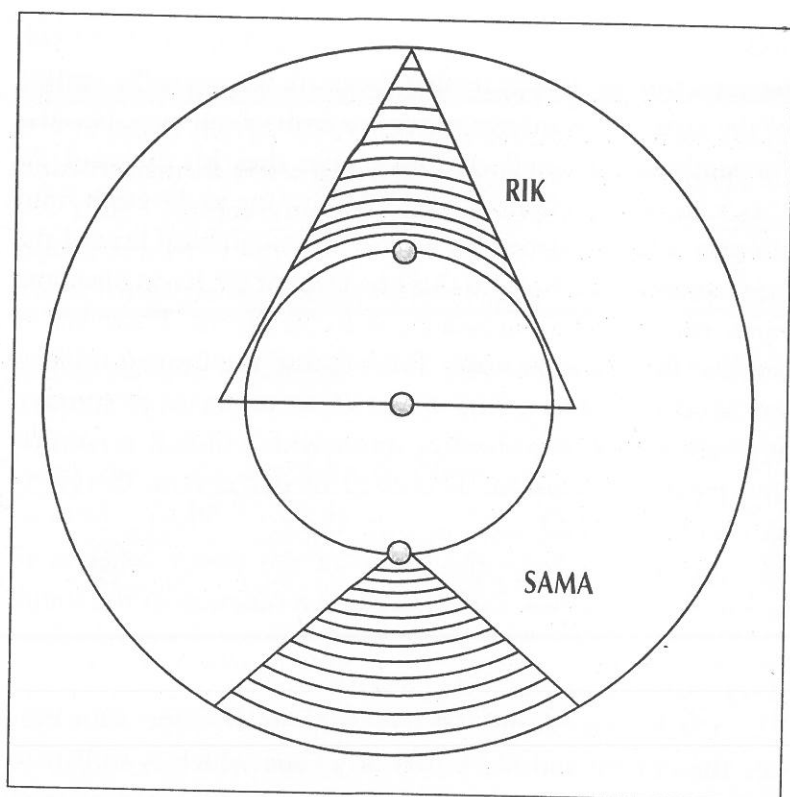
object in this universe is a 'flame' with rings formed all around it, extending far into the distance.

The word Akasha is derived from the root *a-kasha*, meaning 'to shine', 'to be visible'. It has several nuances, although over a period of time it has come to mean 'space'. Space or Akasha is the subtlest of the *Pancha Mahabhoota*, the five gross elements. The other four are Prithwi (earth), Jala (water), Teja (fire) and Wayu (air/wind). As the subtlest of all the elements, space provides room for all further creation. It is sometimes conceived of as fullness and sometimes as a vacuum. It appears to differ owing to the difference of the limiting adjuncts imposed upon it, but in reality it is one. Space lets things be visible; it allows them to manifest themselves. Akasha or space is that in which the sun and other luminous entities shine.

If we visualise this vast space called Akasha, the all-pervasive sky, as a circle, then that circle will be called Sama. Innumerable forms of that 'flame' — the individual object referred to above — are present within that circle although we do not see them. If we place a piece of glass within that ring, we will see only one flame. But if we were to place 1000 pieces of glass within the circle, we would see 1000 flames. In other words, although there are innumerable flames, they become visible as different flames only when they are reflected in a mirror or on the surface of some other material which has the properties of reflection. The mirror does not 'create' the image, of course. If it did, some portion of the mirror would be used up in creating the image, which does not occur. The mirror remains totally unaffected by the process of creating and revealing the image. So the flame, which is already present in space, becomes visible to us as its reflection in the glass meets our eyes. All these flames in the circle of light are Rik.

If straight lines are drawn from the centre of the Sama circle in all directions, the distance between them continues to expand. In contrast, Rik waves flow from the centre to the boundary of Sama, and their diameters shrink according to the increase in their distance from the centre. This is why an object looks bigger when we are close to it, and smaller as we move further away from it. This is explained in the following illustrations.





Whether an object is above, below or at a tangent to us, it will always appear smaller as the distance increases. The sun, moon and stars appear small to our eyes, irrespective of the fact that the earth is round. The sun is bigger than the earth, with a diameter of 1,393,000 km — more than 100 times the diameter of the earth. Venus is bigger again than the sun. These orbs appear smaller or bigger relative to each other because of distance, which is dictated by the size of the Rik that meets our eyes.

Whether an individual is self-illuminated, reflected by another light source or opaque, all such individuals derive their Veda from the sun, which is the visible personification of Veda. When we stand in a desert lit by intense sunlight

and we look from a distance at the sprawling sheet of sand, we see a mirage. It appears that there are waves on the surface of the water. This mirage is not the fault of our eyes, because the sun's rays are deflected back after they hit the sand. As they return, they clash with the rays coming to the earth from the sun, and this generates waves. The scorching heat of the sun makes the air hot and this hot layer of air, having become light, rises upwards, creating a wave in the air. These waves are like the waves in water, but because the human mind is not accustomed to seeing waves of air or waves of sunrays, it recalls waves on a sheet of water with which it is familiar and creates an illusion. The error or perception, therefore, lies with the mind and not with the eyes. The function of the eyes is to receive the image of the waves, whereas to connect those waves with water is the function of the mind.

THE SNAKE AND THE ROPE

Let us take the example of the snake in the rope. Our eyes see the curved and black part of a rope which is similar to a snake. Our eyes themselves do not decide that it is either a rope or a snake. It is our mind which becomes confused between the properties of a rope and those of a snake and assumes that the rope is actually a snake. This is a defect of the mind, therefore, and not of the eyes.

Does this mean that our eyes are a reliable indicator of the truth? The seer-scientists examined this question very closely. A person is different in adulthood from the state of childhood, and is different again in old age from adulthood. Yet we can accuse our eyes of seeing that person as the same individual despite these changes. The message given by our eyes at one and the same time tells us that a child and old person are different, and yet they are the same individual. From this message conveyed to us by our eyes, we treat the

person as the same, notwithstanding the changes. These contradictory messages surely mean that one of them must be false, or both of them may be false. Therefore our eyes, which in this instance are sending us the wrong message, cannot be considered a reliable instrument of indicating reality. But are we not rushing to a conclusion without adequate investigation? Let us proceed a little further.

THE BODY AND THE INNER SELF

A human being can be divided into two components of body and inner self. The body is that part of a person which remains tangible even after death, until it merges with the basic 'elements' of earth, water and suchlike. The inner self is that fine, subtle part of a person that cannot be accessed after death, but which enables the body to move during life. It has desires, it generates activity, causes motion and initiates action. It has no form, but has the strength to wear the body and to carry it.

Death is the separation of the body and the inner self. The body assumes a number of states between birth and death, as a result of physical 'inflections'. Childhood, adulthood and old age are three obvious states of the body, but this categorisation can be further refined if we look at the body closely. We find that the body passes through six stages: it is *born*; it continues to *exist*; during the course of existence it *grows*; it *changes*; it *declines*; and finally it *dies*.

To put it another way, the body is that in which these six states or transformations are discernible; these are also called the 'inflections of the body'. That in which none of these six transformations takes place is the inner self which, having no 'inflections', undergoes no transformation. The inner self remains the same from birth to death.

The inner self is called 'Aham' and is the abiding sense

that 'I am'. It is often expressed as 'Self'. The sense of 'I-ness' continues to float without change from birth to death, whereas the body (which the inner self wears) changes states from one moment to another, undergoing numerous transformations in the process. Of the two components of a human being, one is unchanging while the other is subject to constant change. (We have discussed this in greater detail in the chapter "Methods of Analysis".) Thus, an underlying sameness and dissimilarity can actually be observed within one individual.

No sense organ can access all aspects of an object, because the functional areas of each of the senses are clearly demarcated. A sense organ is an instrument of proof only in respect to the area assigned to it. For example, the eyes are a tool of proof only in respect of form, because they cannot access sound or smell. If an obstruction intervenes between a particular sense organ and its designated area, it cannot be held responsible for the inability to discharge its function satisfactorily. An obstruction does not undermine its reliability as an instrument of proof. If a cloud comes between our eyes and the sun, robbing us of the sight of sunlight, we would not conclude that the sun has no light. Thus it is appropriate to accept the premise that the sense organs remain a reliable tool of providing proof; in the event of a defect in these organs, our task is to identify the causes of that defect.

The rays of the sun may appear to be red, yellow or green if they pass through a glass of that particular colour. The red, yellow or green light merely proves that light has passed through a glass of that colour. It does not mean that the light itself is of that colour. Now that we have investigated this subject in more detail, we can conclude that the senses remain a vehicle of 'proving' reality.

MIND: ANOTHER VEHICLE OF 'PROVING' REALITY

The mind is also a tool that provides proof of reality. It is a means of acquiring awareness, or it may be called the medium of awareness. Sometimes, as a result of an infirmity in the mind, it produces false awareness and thereby commits a mistake. But false awareness is also a variation of awareness, one which is affected by defects and infirmities. For example, to mistake a rope for a snake is false awareness. But we know that awareness is the function of the mind, and confusion is the function of the defect. Both the mind and the defect discharge their respective functions, so the falsehood caused by the defect should not be attributed to the mind.

KNOWLEDGE AND EXISTENCE

Knowledge and existence are intertwined in this universe. We can know something only when it exists, and it exists only when it is in the orbit of our awareness. The word 'Indian' indicates the people of a country named India to those who know of the existence of that country. Otherwise, if you are only aware of the existence of the original inhabitants of America — who are also known as Indians — the word 'Indian' will mean those people to you. Similarly, 'Indians' in America exist only if I know about them. If we do not know of them, they do not exist (for us). The things which people on this planet do not know of do not exist (for them). They come into 'existence' only when people on planet earth come to know about them.

The knowledge spoken of here conveys the sense of reaching or attaining an object, which is accomplished in two ways. Firstly, if we know the existence of an object, we have 'reached' it. Secondly, when we 'acquire' or 'attain' an object

which exists, we have 'reached' it. That which we 'reach' or 'attain' in this manner is truth or reality.

What is the proof of reality? That which enables us to know reality is its proof. This assumes that we know an object exactly as it is. We know the reality of something when our knowledge corresponds to the object in every respect. For instance, we see the moon in the sky because a moon exists in the sky. This knowledge is transmitted to us by our eyes or by the word of a reliable source. But if we were to see 10 moons in the sky at the same time, this would be the result of a defect in our eyes. In the ultimate analysis, awareness and existence are inseparable. Something that has entered our awareness has also come into existence. Pragmatists assert that something which has come into awareness must have its existence verified in order to exist, because awareness without existence is an illusion. But this proposition is false, because existence and awareness are indistinguishable.

The mind's function is to enlighten, to throw light on reality; when it has done so, its function is finished. Defects or infirmities creep in through various loopholes, such as defective sense organs or the shadow of impulses and desires. The manner in which exertions are made to know reality can also cause defects. If our eyesight is defective, we may be unable to see an object because it is too far away (or too close). Certain deficiencies may rob a person of the faculty to know the fragrance of a flower, but naturally this does not mean that the flower has no fragrance. If someone makes an earnest 'endeavour' to know the reality of a rope, (s)he will see the rope. But if her or his exertions are deficient, (s)he sees the rope as a snake. Infirmities in the knowledge of an object may also appear as a result of defective or distorted comprehension.

Direct knowledge has three components. The first is

knowledge gained through the sense organs; the second is knowledge gained by the mind; and the third is knowledge gained by Atma. Without Atma, there would be no knowledge. Awareness and existence are facets of reaching reality. To 'gain' this reality is Veda, and the Veda of an object is 'proven' when there is awareness of it, when it has an existence and when it can be 'reached'.

IDENTIFYING JEEVA

The universe continues to sparkle before our eyes, wherever we may be. We cannot say that there is nothing before us. The very fact that the universe is before us is so powerful that no proof is needed to establish the veracity of this statement. However, if we separate the 'universe' from 'sparkle', we are left with 'light' (which awaits an object, ie. the universe). An investigation of this reveals that the 'I' — the Self — is the source of this 'light'. Just as the sun is the source of the light which illumines all the objects in the universe, so the source of light which illuminates the universe is somewhere within us. That source within us which sheds light on the universe is the 'I'.

If the 'light' were to be separated from the universe, only the awareness (of the universe) or that 'light' would remain. If we try to locate the source of that 'light', we find that it is nothing other than 'I'. This is Self, and this Self makes decisions on the basis of reason after due investigation. In the process of this investigation, however, the Self may begin to doubt and become somewhat uncertain. The Aham (Self) is the truth which is the source of all knowledge. The relationship of Self to that light of knowledge is so intimate that the knowledge of the reality of this universe cannot exist without the Self and neither can the Self exist without that knowledge. Self *is* that knowledge, and when the universe

gleams in the light of that knowledge it cannot be false. That which we reach as truth by this knowledge is Jeeva.

Whenever we as human beings (or animals, for that matter) see another of our own species, a sudden and spontaneous process of comparison begins inside us, by which we ascertain whether the other is stronger or weaker than us. If we think that the other is weaker, Jeeva begins to rise in an aggressive mode. Even if no external aggressive act takes place, Jeeva creates a pretension of fearlessness and independence in which a perceptible element of arrogance exists. Conversely, when we conclude that the other individual is stronger than us, the Jeeva begins to shrink and a desire to flee arises. If we think the other's strength is equal to our own, we begin to speculate about how (s)he is likely to behave. That in which the process of comparison takes place is the centre of Jeeva.

Jeeva is the source from which my knowledge, awareness and consciousness of the universe arise. The centre of all consciousness, of all knowledge, is 'I-ness' or Jeeva. It is also the source of the light of truth and of untruth, of real and unreal.

THREE PRINCIPAL ATMAS

Three of the principal Atmas discernible in the body are Agni, Wayu and Indra. They cause the body's warmth, as well as the inhalation and exhalation of the breath and the sparkle of our eyes, together with the opening and closing of the eyelids. All three are closely interconnected and cannot exist without the others. When these Atmas manifest in a body they are given the names Vaishwanara, Taijas (or Sutratma), and Prajnyatma.

The heat in the body is caused by the supraphysical energy of Vaishwanara Agni. The supraphysical energy involved in our inhalation and exhalation of air (Wayu) is

Sutratma; and it is Indra which causes the opening and closing of our eyelids. Indra is located in the brain, and its energy waves are sometimes noticed in the eyes as sparks of light which have a slightly bluish or greenish hue. This light makes everything around us visible, and keeps our body alive.

According to the seer-scientist Talwākar, Indra is the supraphysical energy of lightning which is sometimes seen emanating from clouds and forking over the sky. Similarly, Indra allows our minds (which are tied to Prana) to move across our consciousness.

Indra comes from the sun and is a product of *Dyau Loka*, the region beyond the sun. Wayu is a product of the space between the earth and the sun, and Agni is a product of the earth. Thus these three supraphysical energies originate in different regions and converge in the body, where they also inhabit different locations. Indra's light radiates from the mouth into the head and makes its influence felt in the entire body. Wayu is located in the chest and Agni in the stomach, and both of these also operate throughout the body. The interpenetration of these supraphysical energies is so total that if one is destroyed, the other two are also instantly destroyed. It is as if the three are woven together with a single thread, which snaps when one of them is destroyed.

That thread — the fourth dimension — is Jeeva, which appears to be the uniting force. Jeeva is not directly discernible. Just as these three Atmas originate in different regions and find shelter in the body, so is the supraphysical essence of Rasa — which flows from the moon — located in Jeeva in the form of Mana. Thus there are five Atmas in the body — Agni, Wayu, Indra, Jeeva and Mana — which remain in harmony even though they each have a distinct function. The Atma in whose shelter the other four function within the body is Jeeva. This is the 'I'.

THE INNER WORLD

The 'I am' awareness is indisputably valid. It establishes the identity of the knower. If there is a knower, there must be something which is knowable, and there must be an intelligence which enables knowledge to occur. So knowledge comprises the knower, the knowable and the intelligence. If one component of awareness, such as the knower, is proved to be real and true, there can be no doubt that something knowable and intelligence also exist. There can be no knowledge without a knower, but this knower is only one component of the threefold process of knowledge. To separate the knower, the knowable and the intelligence into three separate categories is erroneous, because there is no knowledge in the absence of these three together. So these three are regarded as parts of the awareness of a single reality. They are three facets of a real and unified knowledge. So if 'I' am real and true, then the universe — as the subject of my awareness — is also real and true.

From the light of awareness arises the realisation of Self in the first instance — the knower becomes known. In that sense, the knower can also be regarded as the subject of awareness; the intelligence or faculty of knowing can likewise be considered the subject of awareness. That which is not knowable cannot be known, and that which cannot be known cannot exist. If the faculty of knowing and the knower did not exist, we would be unable to have any experience.

JEEVA AS KNOWER

The knower, knowable and knowledge derive their sanction from the knower alone, which is Jeeva. That awareness which enables us to have the perception of the knower also enables our perception of the universe, that which is knowable. In this three-faceted awareness, the universe is

regarded as the knowable, the subject of knowledge. In this universe there are inanimate objects such as rivers, mountains and so forth, and also sentient objects, which are similar to us in the construction of their bodies and in their behaviour. However, notwithstanding this similarity, the distinct location, age, attributes and characteristics cause differences to exist.

I am a Jeeva. I find similar characteristics in others, who may also therefore be called Jeeva. But 'they' and 'I' can never be considered the same, because we differ in our age, body, location etc. So we must concede that we are all different Jeevas, and that there are innumerable Jeevas in our universe.

According to modern studies of the physical universe, the nearest star to us is the sun, which is the provider of life on earth. The stars live together in galaxies, and our sun lives in a spiral-shaped galaxy. Four types of galaxies have now been identified. According to the seer-scientists of the *Vedas*, one sun is the regulator of one universe and innumerable suns regulate innumerable universes. Similarly, the sphere of awareness of every human being is different, and the regulator of that very sphere of awareness is a different Jeeva. We experience our own awareness and consider everything to be its object. We know, and everything else is the known. So 'I' am the subject and 'others' are the objects.

But the same is true of others also. From their perspective, I am the object of their awareness, and they are the 'Self' who is the knower. This makes it difficult to decide who is the object of whose awareness, and thus it is appropriate to treat each individual as a separate Jeeva. Every Jeeva considers the whole universe as the object of his or her awareness or knowledge.

AWARENESS AND EXISTENCE

I am experiencing this universe. In other words, the universe is floating in my awareness. This experience or awareness is the substructure of the universe, in that the universe rests on that awareness. If that awareness did not exist, this universe would also not exist. Since I experience it, I verify its existence and my sphere of awareness is its basis. Likewise, I am the source of this sphere of awareness; I am at the root of this experience.

The sphere of awareness of each knower is different. Consequently, the world floating in each sphere of awareness is also different. The world floating in my sphere of awareness cannot be the same as the world floating in the awareness of Ramesh or Robert. Sometimes we can experience this difference in a very obvious way. I see the sun rising in India while John, who is in a country located at 180 degrees from me, sees the sun setting on his horizon. Someone else who is midway between us sees the noonday sun high in the sky. To take another example, I may recognise a person as my dear friend, while for you that person could be your worst enemy. And just as person A experiences joy from something, person B may experience unhappiness from the very same thing. These examples, and many others, reveal limitless numbers of distinct Jeevas, and the world in the sphere of awareness of each is different. When we are asleep, our sphere of awareness ceases to function temporarily, and our universe also ceases to exist for that duration. However, during the same period others, who are awake, continue to experience their world in their respective spheres of awareness.

Let us postulate an objection at this point: if we recognise that various individuals in the universe are not merely products of perception, but exist, then the existence of an individual is not subject to awareness. Rather, the

awareness of an object is subject to its existence. So it could be asserted that the existence of objects is independent of awareness. Even if awareness is limitless, objects do not become limitless and, moreover, different people can see the same object at the same time.

There is an effective response to this objection, as follows: the fact that various objects in the universe are made of matter does not prove that they are not subject to awareness. We concede, for example, that the moon in the sky is there not because of our awareness of it, but that it has been there since the beginning of creation. At the same time, it is obvious that we become aware of the moon when we see it. There are three possible explanations for this occurrence. Firstly, awareness is within me and the moon is in the sky, so the two are unrelated. However, despite this, it is nature's law that awareness occurs when something comes before the eyes.

The second explanation is that the faculty of awareness travels from my eyes to the object, touches it and thus makes me aware of it.

The third explanation is that the form of that individual extends outwards (within a certain area) all around its body. When my gaze enters that area, the form of the object makes an imprint on my eyes, in the same manner as the image of an object leaves an imprint on a mirror or on water. Some awareness-generating nerves originating in the brain are located in the eyes, through which awareness flows from the eyes to the brain. As soon as the reflection in the eyes makes contact with Prajna Prana, the supraphysical energy causes awareness to take the shape of that object, and the current of awareness begins to flow from the eyes to the brain.

This form of the individual, floating in awareness, is different from the form of the object which travels to our

eyes from the body of that individual. If that object is removed or covered, its reflection in the eyes is also removed or obscured. But the form of that object made of Prajna Prana is not removed; it remains within us for a very long time. This indicates that the two forms are distinct: one is made of matter and the other of awareness. The former has weight, while the awareness-object has no weight.

We could describe the material form as existential and the awareness-form as perceptual. The form of an individual floating in our awareness is the perceptual reflection of our awareness of that object, and not the material object. This perceptual form is our inner world, which remains within our awareness and has no existence beyond it. There are innumerable inner worlds, because awareness or knowledge in its abstract state (when it is not related to a specific 'individual') is unlimited.

1 *Sarvam tejah sam roopam hi shashvat* — *Tatteriya Brahmana* 12:9:2:3.



*kalo ashwo vahati saptarahsmi
sahasraksho ajaro bhoori retah
tamarohanti kavayo vipashitastasya
chakra bhuvanani vishwa*

This horse of time carries the weight of the
entire universe on its back. Seven rays radiate
from it. It has one thousand eyes.

It never becomes aged. It is very strong
and powerful. The wise ride this horse
as it roams all the worlds in this cosmos.

ATHARVA VEDA 19:59



CHAPTER NINE

The Space-Time Continuum



INTRODUCTION

TIME IS ETERNAL AND EVER-CHANGING. THE NEXT moment or a fraction thereof is never the same as the preceding moment or a fraction thereof. Time cannot be halted nor averted; its flow cannot be interrupted. Like water seeping through the gaps between our fingers, time continues to flow incessantly.

Time has no form in its eternal facet. Yet it possesses numerous forms in its ever-changing facet, with which we are familiar — the second, minute, hour, day and night, week, month, year, decade, century, millennium etc. This manifestation of time in its numerous forms is called *Samaya*, while time's eternal unmanifest aspect is known in the *Vedas* as *Kala*.

We shall be meeting these terms again in a short while; but first we shall take a brief look at the 'modern' concept of time, in order to compare it with the profound insights into the nature of time gained by the seer-scientists of the *Vedas*.

"What, then, is time? If no one asks me, I know what it is. If I wish to explain it to him who asks me, I do not know."

St. Augustine's remark, made in the 5th century AD, draws our attention to the fact that while time is the most familiar of concepts used in the organisation of thought and action, it is also the most elusive. It cannot be given any simple, illuminating definition. Philosophers have sought to gain an understanding of time by focusing on two broad questions: what is the relationship between time and the

physical world; and what is the relationship between time and consciousness?

Sir Isaac Newton was one who adopted the absolutist theory of time, which answers these questions by saying that time is like a container within which the universe exists and change takes place. Time's existence and properties are independent of the physical universe; time would have existed even if the universe did not. Time is held to be without beginning or end, and to be linear and continuous. That time has these properties is established philosophically, without reference to scientific investigation.

The rival relationist theory states that time can be reduced to change. It is nothing over and above change in the physical universe, and all hypotheses about time can be translated into hypotheses about the physical universe. Consequently, the question "Has time a beginning?" becomes "Was there a first event in the history of the universe?" Relationists explore the possibility that physics could show time to have structure: this may consist of discrete particles (chronos) or it may be cyclical.

Philosophers in the 20th century have realised that time cannot be treated in isolation from space, and they now tend to focus their attention on 'space-time' which has been conceived, after Einstein, as a continuum. While the temporal aspects of space-time remain importantly different from its spatial aspects, interdependence is demonstrated in the case of measurement: the measure of an interval of time assigned by a clock depends on the path and speed with which it moves. The fundamental controversy between the absolutist and the relationist remains, with some philosophers arguing that Einstein's theories of relativity vindicate the relationist theories while others contend that they vindicate the absolutist theory.

Einstein's Theory of Relativity underlines the conclusion that "Time and space manifest differently for different observers or perceivers." It should be pointed out here that these effects are real; they have been confirmed in laboratory experiments on countless occasions, and are now an accepted part of our understanding of how the universe is constituted.

The importance of the human observer in the phenomenon of length contraction is described graphically by Sir Arthur Eddington: when a rod is started from rest into uniform motion, nothing whatever happens to the rod. We say that it contracts; but length is not a property of the rod. It is a relation between the rod and the observers. Until the observer is specified, the length of the rod is quite indeterminate.¹

According to Bertrand Russell: "Until the advent of the special theory of relativity, no one had thought that there could be any ambiguity in the statement that two events in different places happened at the same time."² As it transpired, however, this is a mistake. Two events in distant places may appear simultaneous to one observer who has taken all due precautions to ensure accuracy (and, in particular, has allowed for the velocity of light), while another equally careful observer may judge that the first event preceded the second, and still another may judge that the second preceded the first. The time-order of events is in part dependent upon the observer; it is not always and altogether an intrinsic relation between the events themselves.

Let us suppose that on a foggy night two bandits shoot the guard and engine driver of a train. The guard is at the back end of the train; the bandits are on the line and shoot their victims at close quarters. A passenger who is exactly in the middle of the train hears the two shots

simultaneously and would say, therefore, that the two shots were simultaneous. But a stationmaster who is exactly halfway between the two bandits hears the shot which kills the guard first. An Australian millionaire aunt of the guard and engine driver (who are cousins) has left her whole fortune to the guard or, should he die first, to the engine driver. Vast sums are, therefore, involved in the question as to which of the two died first.

The case goes to the House of Lords and the lawyers on both sides, having been educated at Oxford, are agreed that either the passenger or the stationmaster must have been mistaken. In fact, both may well be perfectly right. The train travels away from the shot at the guard, and towards the shot at the engine driver; therefore the noise of the shot at the guard has farther to go before reaching the passenger than the shot at the engine driver. If the passenger is right in saying that she heard the two reports simultaneously, the stationmaster must be right in saying that he heard the shot at the guard first.³

Universal cosmic time, which used to be taken for granted, is thus no longer admissible. For each body there is a definite time-order for the events in its neighbourhood; this may be called the 'proper' time for that body. Our own experience is governed by the proper time for our own body. As we all remain very nearly stationary on the earth, the proper times of different human beings agree and can be appropriate to large bodies on the earth. For electrons in laboratories quite different times would be required, however; it is because we insist upon using our own time that these particles seem to increase in mass with rapid motion. From their own point of view, their mass remains constant, and it is we who suddenly grow thin or corpulent. The history of a physicist as observed by an electron would resemble Gulliver's travels.

The question now arises: what does a clock really measure? When we speak of a clock according to the Theory of Relativity, we do not mean only clocks made by human hands; we mean anything that goes through some regular periodic performance. The earth is a clock because it rotates once in every 23 hours and 56 minutes. An atom is a clock because it emits light waves of very definite frequencies, which are visible as bright lines in the spectrum of the atom. The world is full of periodic occurrences; and fundamental mechanisms, such as atoms, show an extraordinary similarity in different parts of the universe. Any one of these periodic occurrences may be used for measuring time. The only advantage of clocks manufactured by humans is that they are especially easy to observe. However, some others are more accurate. Nowadays the standard of time is based on the frequency of a particular oscillation of caesium atoms, which is much more uniform than one based on the earth's rotation. But the question remains: if cosmic time is abandoned, what is really measured by a clock?

Each clock gives a correct measure of its own 'proper' time, which is an important physical quantity. But it does not give an accurate measure of any physical quantity connected with events on bodies which are moving rapidly in relation to it.⁴

Events in time are normally considered in terms of the notions of past, present and future, which some philosophers treat as being mind-dependent. They argue that to say that something is now happening (or has happened, will happen) is to say that its happening is simultaneous with (or earlier than, later than) one's current state of consciousness, or the act of utterance itself. Thus, it is maintained that there is no past, present or future in the absence of conscious beings.

This view that the past, present and the future are mere subjective projections of the human mind has been supported by an appeal to physics, for such notions were thought to play no role in physical theories. (Recent evidence from the subatomic realm has raised questions about the symmetry of time in physical processes.) Other philosophers, however, believe that time is independent of perception and that the past, present and future are objective features of our world.

The measurement of time involves establishing a precise system of reference for specifying when any event occurs — ie. for specifying the epoch and establishing a standard interval of time. Astronomy and civil affairs are concerned both with epochs and with time intervals, whereas physics deals almost entirely with time intervals. The fundamental unit of a time interval is the second.

Until recently, the rotation of the earth about its axis furnished the only time-scale in general use, by which we mean solar time. However, other independent time-scales and systems have recently come into use. These include Universal Time (UT; the mean solar time of the meridian of Greenwich, England); Co-ordinated Universal Time (UTC; the basis of legal, civil time); Rotational Time; Ephemeris Time; Dynamical Time; Terrestrial Dynamical Time (TDT); and International Atomic Time, which was introduced in 1955. A goal in timekeeping has been to obtain a scale of uniform time, but this has presented many problems to modern scientists, the details of which we need not examine here. We can conclude this discussion with the observation that time appears to be more puzzling than space because it seems to flow or pass, or alternatively that people seem to advance through it. But the actual nature of its passage or advance seems to be unintelligible.⁵

TIME: ETERNAL AND EPHEMERAL

(The Concept of Time in the Vedas: A Brief Overview)

We shall now turn our attention to what the *Vedas* have to say about the nature and functions of time. The great seer-scientist Maharshi Asyawami explored this subject in immense detail and composed several verses in the *Atharva Veda* on the inter-relationship of direction, space and time. An exploration of these facets will bring us to an understanding of the Indian view of the space-time continuum.

Conventionally speaking, time consists of past, present and future. However, a deeper look gives rise to several complex questions, such as: has time a beginning and an end? Is it possible to measure time? On one level, we could say that it is possible to measure the present but impossible to measure the past and future. The question then arises: what is the present? The conventional view suggests that what is before our eyes constitutes the present. The present begins every day when we wake up out of sleep. It begins to unfold, as it were, in the morning when we open our eyes and look around at the world. The interaction of objects and the environment with our sense organs leads to an experience of the present. Without the faculty of this interaction, there would be no such experience.

In such an interaction as this, our eyes represent all the sense organs. The faculty of sight, in that sense, is critical to our experience of the present. Since the intervention of light is essential for us to see an object, the concept of the present is inextricably linked with that of light. There are several sources of light in our world — the stars, planets, lamps, electricity etc. — but for we humans the sun is the principal source of light. Therefore, the present is fundamentally dependent upon the sun as the basis of creation or the foundation of the universe. On

another level, we could also say that the life cycle of our universe constitutes the present.⁶

Insofar as time is measurable, it has a form. Air has no form, yet it acquires a form when it is imprisoned in a tube or a bottle and becomes measurable. Space has no form, but it becomes measurable and acquires a form when placed within the bounds of a hall, for example. Similarly, the units of measurement of calculating time give time a form. In this sense, the present can be said to have a form. The past and future, however, are beyond the scope of our sense organs and do not lend themselves to calculation or measurement; to that extent, time can be said to have no form. We can attempt to gain some idea of formless time with the aid of measurable time, that is of time which has a form. While the present has a beginning and an end, the past and future are endless. Because the manifestation of all objects becomes possible through the intercession of light — with the sun being its primary source — solar time shapes the present. From this viewpoint, the period ranging from the birth of the sun to its dissolution constitutes the present. This solar time runs in a linear fashion, and the linear attribute, the 'measurable-ness', gives to the present time a form or a shape in the nature of seconds, minutes and hours.

All that is born dies. All that comes into being ceases to exist in due course. The sun, this shining ball we see in the sky, came into being at some juncture and therefore will, no doubt, 'die' or cease to exist at some other juncture. At that turning point the entire visible universe, its inanimate and sentient beings, the stars, the planets, the galaxies and all objects that constitute it will dissolve into some unknown darkness. The seer-scientist Maharshi Manu stated: "This darkness was there before the sun came into being. It has no properties and attributes. It is beyond debate and

discussion. Its purpose is not discernible."⁷ At this level, the unmanifest stage — which is the period before the coming into existence of the sun — constitutes the past; it has no beginning. The phase after the dissolution of the sun is the future; it has no end.

The unmanifest phases of past and future are seen as two different states only because to do so facilitates our understanding of the phenomenon of time and helps us explain it. The past and future comprise an indivisible state in reality. It is only because of the phase which comes between these two that one indivisible state is expressed as past, present and future. (The phase in the middle of past and future is the *manifest* phase, the period which is co-terminous with the existence of the sun.)

In other words, the vast, limitless, unmanifest phenomenon of time has no form, no beginning and no end. It acquires a form, a beginning and an end because of the intervening state between past and future. The present is an indicator of the past and the future. Time expresses itself, therefore, by its 'middle' state. Theoretically, the period of existence of the sun (the present) is linear and lends itself to calculation. However, if we look at time on the subtle level, we find that it extends endlessly in all directions.

We have described the present as linear and we have said that it lends itself to calculation. However, when we make a sincere effort to understand the present, we find that it is impossible to grasp the full measure of a present which has a beginning and an end. This is because the unmanifest precedes as well as follows the manifest form of time. Encased on both sides by the unmanifest, the middle state of the present is also in essence unmanifest. The past, present and future are thus integral parts of an endless continuity.

WHAT IS THE PRESENT?

Let us take a day as an example. The time encased between the morning and the evening constitutes the present, yet can we isolate any one mass or section which is definitively the 'present'? Obviously not, because time is a sequence of an unending stream of moments. The moment in which we are now is a moment we are living and therefore experiencing. It is preceded by a moment that no longer exists, is no longer 'visible' or 'discernible' to us and is, therefore, unmanifest. Immediately following the moment in which we are now is another moment which is as yet unknown. We can neither experience nor discern it, and in that sense it is unmanifest.

Thus we find a linear arrangement of manifest and unmanifest, in a sequence that goes on almost endlessly and comprises the present. What is the present now becomes the past in the very next moment. And what is the present now was the future one moment earlier. From morning to evening we are engrossed in this continuous linear arrangement of past, present and future. That is why the geers said that what is the present is also the past and the future. What has neither a beginning nor an end acquires a form and thereby comes to have a beginning and an end.

Let us now move one step further. A 12-hour day may constitute the present, beginning with sunrise and ending with sunset. In other words, it comprises the period during which the sun is in existence for a human being. We shall call this a *human-day*, abbreviated to *HD* for the purposes of this discussion.

HD has another level, which has reference to the period when the sun comes into being until the point when it dissolves or 'dies'. This period also comprises the same sequence of innumerable manifest-unmanifest-manifest

points, or innumerable *HDs*. We shall call this *BD*, an abbreviation of *Brahma Divas* which means a day of Brahma.

An *HD* consists of an unending stream of points, arranged in a linear configuration as manifest-unmanifest-manifest-unmanifest-manifest etc. A *BD* comprises an unending stream of *HDs* arranged similarly in a linear form, the totality of manifest-unmanifest-manifest-unmanifest and so on. That which comprises these innumerable 'points' which go to form an *HD* is called *Vāk* and is the basic unit or fundamental Tattwa of time. It covers the span from the basic unit to the largest unit.

The Indian view of time, however, is by no means linear. An entire branch of Vijnana in the *Vedas*, known as the *Vāk Sahasri Vidya* or the science of *Vāk*, is devoted to the study of this subject. For our purposes, it will suffice to take a brief look at the calculation and measurement of time in the ancient Indian texts.

FROM LINEAR TIME TO THE SPIRAL OF TIME

The ancient Indian concept of time as described in the texts begins with its linear state, then moves on to the view of time as a vertical spiral of circles. The circle becomes larger at each successive level in the spiral, subsuming the previous circle. As we move from the base of the spiral to the successive higher circles, we are called upon to widen our comprehension. At each successive level, the measurement is more difficult and the numbers slowly become overwhelming. In that sense, time becomes immeasurable.

As noted earlier, the spiral can be viewed as a succession of circles. It can also be viewed as one huge circle into which all the other circles have collapsed. The reverse perspective is that the tiniest of the circles contains the largest. This is enunciated in the famous formulation: the subtler of the

subtle and greater than the great is located in the heart (the centre).⁸ These circles are of supraphysical energy, and here we find Prajapati in its subtlest state.

We have discussed Prajapati in some detail in the previous chapters. Prajapati needs to be conceptualised at several levels, but this is not easy given the limitations of the tools of human visualisation. Comprehension becomes more challenging as we move to higher and deeper levels. If the concept is easily comprehensible at one level, at the next level it becomes comprehensible with some difficulty. At yet another level it is extremely difficult to conceive of the concept, and at the highest level it becomes virtually incomprehensible. These terms 'easy' and 'difficult' are relative, since the effort to comprehend Prajapati or, for that matter, eternal time is almost beyond the limitations of the human tools of body, mind and intellect.

At the highest level Prajapati is known as *Paratpara*. Here it has neither the attributes of time, age nor boundary, and is therefore described as incomprehensible. The limits of human comprehension are subject to the limitations set by nature — included in this are those additional capabilities which the human intellect augments to its 'normal' faculties by technological advances. *Paratpara* is beyond nature, which is why the terms 'supranatural' or 'supraphysical' are employed to communicate this state. Notwithstanding the statement that at its highest level Prajapati is virtually incomprehensible, let us make an effort to imagine it.

Imagine *Paratpara* as a vast and limitless ocean upon whose surface float innumerable entities called *Parmeshwara*, in the same manner as innumerable bubbles float on the vast surface of a limitless ocean. We shall study just one of the innumerable facets of *Paratpara*, known as *Maheshwara*.

A *Vivarta* is a state, position, phase or aspect of an

infinite continuing, unbroken, indivisible entity. Prajapati or Brahma has four principal Vivartas; the initial one, called Paratpara, is beyond the frontiers of time-age calculation. In view of the limits in our comprehension of the affairs of nature, Paratpara is categorised as 'unthinkable'. It is beyond debate and 'rational' investigation. It is reached through other ways and tools or methods' which are discussed in several chapters of this book, including the chapters "Who is the 'I'?" and "Harnessing Our Untapped Potential". In the normal course of events, the human mind must confine itself to an examination of the three other Vivartas, which are classified as (a) extremely difficult to comprehend, (b) comprehensible and (c) easily comprehensible respectively.

There is a code-name for each Vivarta. The first, which we have described as 'incomprehensible' and defying rational investigation, is given the code name Parmeshwara. On its limitless surface is Maheshwara, the second Vivarta of Prajapati, which is extremely difficult to comprehend. Maheshwara is like a tiny bubble floating on the surface of a limitless ocean. The third state, which is comprehensible to human intelligence, is called *Balsheshwara*, while the fourth Vivarta of Prajapati, which is somewhat easily comprehensible, is called *Upeshwara*. These four Vivartas indicate four distinct Tattwas which define and represent four subtle fundamental principles underpinning creation. To facilitate human comprehension of these four Tattwas, the word 'Ishwara' is commonly used to convey all of them. Having endeavoured to comprehend the three Ishwaras of Maheshwara, Balsheshwara and Upeshwara, we come to the level of human existence. We are currently engaged in assessing and investigating the 'age' of this domain that we inhabit.

THE SPIRAL OF THE TIME-SCALES: A HIERARCHICAL ARRANGEMENT

Let us now take a look at the way in which the seer-scientists measured and calculated time. Their measurement is composed of units of 100 years, on the basis of the lifespan of a human being.

After a human being has spent his or her lifetime — that is, after (s)he has consumed ‘100 years’ — (s)he is subsumed into a larger entity. This entity is Upeshwara, in which the supraphysical energies comprising the human being (the *Samvatsara Prajapati*) are dissolved. When *Samvatsara Prajapati* in its Upeshwara form has spent its ‘100 years’ — its lifespan — it is subsumed by and dissolves into Balsheshwara. After spending or consuming its ‘100 years’ or span of existence, Balsheshwara in turn is subsumed by and dissolves into Maheshwara. Finally, Maheshwara is subsumed by its own source, Parmeshwara. Thus, one of the innumerable bubbles floating on the surface of the limitless ocean of Paratpara merges into Parmeshwara.

In the multi-level spiral, the lower circle collapses into the higher. The next — including the first circle — collapses into a yet higher circle, and finally the third (inclusive of the first two) collapses into the fourth or highest circle in the spiralling ladder. Each of these events — the collapse — is called Pralaya. The first is Routine Collapse or *Nitya Pralaya*, the second is Solar Collapse or *Saur Pralaya*, the third is Collapse (Pralaya) and the final is the Great Collapse or *Mahapralaya*.

A human being is the manifestation of *Samvatsara Prajapati*, also known as Upeshwara. In other words, Upeshwara or *Samvatsara Prajapati* is the primary Tattwa, the creator of a human being. These are all supraphysical entities, not inert material substances. They are the life-

force(s) or various forms of supraphysical energy. The creator of Upeshwara is Balsheshwara, which has five facets: the earth, sun, moon, Parmeshthi and *Swayambhu*. The last of these, *Swayambhu*, is Brahma, while Parmeshthi is Vishnu and the collectivity of the earth, sun and moon is Mahadeva. This trinity is often described in the *Puranas* as the creator-sustainer-destroyer of creation.

The sun, earth and moon dissolve in the first instance into the ocean of Parmeshthi, in accordance with the sequence of earth, sun, moon, Parmeshthi and *Swayambhu*. Upeshwara is thus submerged in Parmeshthi in a partial collapse. This marks the end of what we call the *Divya* Period, the end of the lifespan of Upeshwara.

Later in the sequence, at the culmination of the Brahma Period, *Swayambhu* dissolves into Maheshwara along with Vishnu or Parmeshthi. This is the end of the lifespan of Balsheshwara, known as the Collapse. Maheshwara has also been conceived of as a huge tree. A time comes when its 1000 branches wither away and it dissolves into its creator, Paratpara Parmeshwara, which is limitless and endless. This is the Great Collapse.

The period of time related to the Routine Collapse of creation is *Mānava Yuga* or the Human Period. The period related to the Partial Collapse is *Divya Yuga*. The third Collapse marks the culmination of the Brahma Period, and the fourth, the Great Collapse, is related to the Ishwara Period, within which all the previous periods are included.

Each of these periods represents a different time-scale and marks a different level in the hierarchy of the time-spiral. Each period comprises 100 years in its specific time-scale. The great seer-scientist Barkali configured these scales and converted them into the scale of the Human Period. He provided the formula for converting the period of, say,

the Maheshwara phase into *human* years. As we shall see, the conversion of the Maheshwara phase into human years presents us with numbers which are so staggering that the seer-scientists considered it advisable to describe them as 'incomprehensible' in terms of the attention span of the human intellect.

To begin with, let us take the human time-scale, in which 30 day-night units constitute one month, 12 months constitute one year, and 100 years constitute a Human Period, i.e. the lifespan of a human being. We shall now measure the time-scale of the Divya Period. One year in the human time-scale is one day-night unit in the Divya time-scale. Thirty such day-night units constitute one Divya month. In other words, one Divya month equates to 30 human years, and 12 Divya months constitute one Divya year. Thus, one Divya year equals 3600 human years. The 'lifespan' or period of existence at this level of the spiral is 100 Divya years. In terms of the human time-scale, this comprises 3600 human years.

India's seer-scientists organised the millions of years of ephemeral time into time-cycles, each of which is called a *Chaturyuga*. Yuga is the unit of an aeon and Chaturyuga is a unit of four such aeons. Each marks a critical qualitative departure from the previous cycles.

THE CONCEPT OF THE FOUR YUGAS

One great time-cycle has been divided into the following four ages, each of which is a Yuga or an aeon-unit:

1. The age of *Satya*
2. The age of *Treta*
3. The age of *Dwapara*
4. The age of *Kali*.

One human year is indicated by the letters *HY*, and 360 human years make one *DY* or Divya year. As we said

previously, 36,000 *HYs* make up 100 *DYs*. At the level of *HY*, 100 years constitutes a complete unit, whereas at the level of *DY* the scale increases to 1000 years. If we now adjust 100 *DYs* into 1000 years, this comprises 3,60,000 *HYs*. Ten thousand such *DYs* constitute the four ages of Satya, Treta, Dwapara and Kali.

Four thousand *DYs* comprise one Satya Yuga, 3000 *DYs* comprise one Treta Yuga, 2000 *DYs* comprise one Dwapara Yuga and 1000 *DYs* comprise one Kali Yuga.

Of the total number of *DYs* in these ages, 800-600-400-200 *DYs* are added to each age respectively to include the period of twilight, the length of 'dawn' and 'evening'. Thus the total span of these four ages adds up to 1200 *DYs*, or 4,320,000 *HYs* (human years). This comprises one four-Yuga period.

One four-Yuga time-cycle constitutes a partial DA or Divya Age (Divya Yuga). Assuming that the sun emits 1000 rays, one four-Yuga time-cycle accounts for one ray. The time-span of the remaining 999 sunrays still remains to be calculated. Only then would it be possible to estimate the present insofar as it relates to DA, the great Divya Age, or to the lifespan of a sun.

The following table attempts to grasp the dimensions of one year in the four-Yuga frame, calculated on the basis of *HYs* as well as *DYs*.

Name of Yuga	Divya Years	Human Years
Satya Yuga	4800	1,728,000
Treta Yuga	3600	1,296,000
Dwapara Yuga	2400	864,000
Kali Yuga	12,000	432,000
Total	22,800	4,320,000

Thus the four Yugas, taken together, consist of 22,800 Divya years or 4,320,000 human years.

Name of the age	Dawn	Median	Evening	Total
1. Satya Yuga	400	4000	400	4800
2. Treta Yuga	300	3000	300	3600
3. Dwapara Yuga	200	2000	200	2400
4. Kali Yuga	100	1000	100	1200
Total	1000	10,000	1000	12,000

To reiterate, this time-span relates only to one of the 1000 rays emanating from the centre of the sun's sphere. Keeping 1000 sunrays in mind, we can estimate the time-span by using *Manwantara* as a measuring parameter.

BRAHMA KALPA

The next stage in the spiral — for the purposes of measuring time — is *Brahma Kalpa*, which we shall abbreviate to *BK*. This consists of 1000 partial *DYs* (Divya years), each comprising the day of this hierarchy, and 1000 *DYs* constituting the night. At this level of measuring time, the calculations are as follows:

Brahma Spiral in the Hierarchy of the Time-Scale

BDN (day-night of Brahma hierarchy of time-scale)	<i>DYs</i> (calculated in Divya years)	240,000,000
BM (one month of Brahma hierarchy of time-scale)	<i>DYs</i> (calculated in Divya years)	7,200,000,000
BY (one year of Brahma hierarchy of time scale)	<i>DYs</i> (calculated in Divya years)	86,400,000,000

BC (one century of *DYs* (calculated 864,000,000,000
Brahma hierarchy in *Divya* years)
of time-scale)

Brahma Time in Human Years

Brahma Units	<i>HYs</i> (converted into human years)
BDN (Brahma day-night)	8,640,000,000
BM (Brahma month)	25,920,000,000
BY (Brahma year)	311,040,000,000
BC (Brahma century)	311,040,000,000,000

In the human day-night unit, consisting of 24 hours, there are 60 *Ghatikas* and 30 *Muhurtas*. Of these, 15 *Muhurtas* are spent during the 12-hour day and another 15 *Muhurtas* in the 12-hour night. This day-night unit is known as a *Tithi* (date). Thus there are 30 *Muhurtas* in a human *Tithi*, and 30 *Tithis* in a human month. There are 30 *Kalpas* in a *Brahma* month and 30 *Manwantaras* in a *Brahma* day-night unit. Fifteen *Muhurtas* are spent in a human day, while 15 *Manwantaras* are spent in a *Brahma* day. In other words, the order and arrangement of time units in different hierarchies of the time-scale are similar; the relationship between *Tithi* and *Muhurta* in the human time-scale is duplicated in the relationship between *Kalpa* and *Manwantara* in the *Brahma* time-scale.

If the lifespan of the sun — the period between its birth and its dissolution — is taken as one day, 14 *Manwantaras* would constitute one *Muhurta* of that level in the spiral of time-scales. Each *Manwantara* comprises 71 four-age time aggregates (*Chaturyuga*), which account for 994 four-age time aggregates. Six four-*Yuga* aggregates are occupied by the

twilight periods and account for the 'dusk' and 'dawn' of these Chaturyugas. By collating them, we come to the estimate of 1000 four-Yuga periods, which signify the span of time that denotes the period of 'existence' of the sun.

To facilitate calculations and estimations of astronomical numbers in measuring time, the seer-scientists divided the 1000 four-Yuga periods into portions of 71 four-Yuga periods each. Of these, 995 four-Yuga periods are consumed in 14 Manwantaras. The remaining six four-Yuga periods are spent during dawn and dusk in the 15th Manwantara. Thus, 1000 four-Yuga periods are spent in 15 Manwantaras. These 15 Manwantaras constitute one day in the lifespan of the sun, and this is known as *Punyah Kala* or *Piyusha Time*.

But the seer-scientist Barkali did not stop there. He continued to calculate and measure endless time. One Manwantara thus comprises 852,000 Divya years and 306,820,000 human years. One thousand Chaturyugas (four-Yuga time aggregates) consist of 120,000,000 Divya years and 4,320,000,000 human years. This constitutes 100 years of Upeshwara, which is the lifespan of a sun.

At this stage, we enter yet another level in the hierarchy of the spiral of time, known as Samvatsara Prajapati. The span of Upeshwara marks the 'present' relative to the lifespan of the sun. From this we can estimate the age of the present universe. How much time has it already used up? How much remains to be spent? And at what point in that linear time scale do we stand at present? In fact, this last question is regularly answered whenever a Hindu performs various religious rites, for on every such occasion (s)he has to identify her- or himself and the exact time when (s)he is performing that rite. This is called *Samkalpa*.

At the level of Balsheshwara Prajapati in the spiral of time-scales, a date is called a Kalpa. Every month in that time-

scale has 30 of these Kalpas, divided into two fortnights of 15 Kalpas each. The first is Shukla Paksha (the bright fortnight), when the moon is visible in the sky; this is the light half of the month, the 15 days of the moon's increase. In the second fortnight, known as Krishna Paksha or the dark fortnight, the moon is descending and this period ends in a dark night when the moon is completely invisible.

30 'days' of a Brahma month

Shukla Paksha/ fortnight of ascending moon	Day	Day	Krishna Paksha/ fortnight of descending moon
Name of Kalpa			Name of Kalpa
<i>Swetavaraha</i>	1	16	<i>Narsimha</i>
<i>Neelalohit</i>	2	17	<i>Saman</i>
<i>Vamdeva</i>	3	18	<i>Agneya</i>
<i>Rathantaar</i>	4	19	<i>Saumya</i>
<i>Raurava</i>	5	20	<i>Manawa</i>
<i>Prana</i>	6	21	<i>Tatpurusha</i>
<i>Brihat</i>	7	22	<i>Vaikuntha</i>
<i>Kandarpa</i>	8	23	<i>Lakshmi</i>
<i>Satya</i>	9	24	<i>Savitri</i>
<i>Ishan</i>	10	25	<i>Aghora</i>
<i>Vyan</i>	11	26	<i>Varaha</i>
<i>Sarasawat</i>	12	27	<i>Vairaj</i>
<i>Udan</i>	13	28	<i>Gauri</i>
<i>Garuda</i>	14	29	<i>Maheshwara</i>
<i>Koorma</i>	15	30	<i>Pitara</i>

The Swetavaraha Kalpa is the first day of the Brahma month. This is the basic unit of the 'present', relative to the lifespan of the sun. It has 14 Manwantaras, six of which have already

been spent. These are: 1. *Swayumbhuv*; 2. *Swarochish*; 3. *Uttam*; 4. *Tamas*; 5. *Raiwat*; and 6. *Chakshush*.

Vaivaswata, the seventh Manwantara, is current. In other words, we are now living in the *Vaivaswat* Manwantara. The remaining Manwantaras are: 8. *Indra*; 9. *Deva*; 10. *Rudra*; 11. *Dharma*; 12. *Brahma*; 13. *Daksha*; and 14. *Soorya*.

As we have noted earlier, each Manwantara comprises 71 Chaturyugas (four-age aggregates). Thus, in the six Manwantaras which have already been spent since the beginning of our universe, six four-Yuga aggregates have been used up, including their respective dusk and dawn. So 432 four-Yuga aggregates have been spent up to the end of the sixth *Chakshush Manwantara*. Of the 1000 four-Yuga time segments, 568 remain to be spent, exclusive of the seventh, *Vaivaswat* Manwantara, which is currently underway.

One Manwantara comprises four ages and accounts for 852,000 Divya years. Converted into the human time-scale, this is 306,720,000 human years. The six Manwantaras which have been spent account for 5,112,000 Divya years, or 1,400,320,000 human years. Within the seventh Manwantara in which we are living now, 27 of the 71 four-Yuga units of time comprising this Manwantara have already been spent. In the human time-scale, this accounts for 116,640,000 years.

Three Yugas — *Satya*, *Treta* and *Dwapara* — have already been spent and we are now in *Kali Yuga*. The three spent Yugas account for 10,800 Divya years or 3,888,000 human years. The fourth Yuga, *Kali Yuga*, comprises 1200 Divya years and 432,000 human years. This entire period is divided into four parts, each consisting of 108,000 human years. Five thousand of the 108,000 years of the first part of *Kali Yuga* have been spent, and we are in the sixth 1000-year phase of *Kali*.

This entire time-scale is reflected in the following table:

Manwantaras already spent	In terms of Yugas	In terms of human years
Swayambhuv	71 four-age aggregates	306,720,000
Swarochish	71 four-age aggregates	306,720,000
Uttam	71 four-age aggregates	306,720,000
Tamas	71 four-age aggregates	306,720,000
Raiwat	71 four-age aggregates	306,720,000
Chakshush	71 four-age aggregates	306,720,000
Total (six Manwantaras)	426 four-age aggregates	1,840,320,000
Vaivaswata (current)	27 (four-age aggregates already spent)	116,640,000
Satya Yuga (28)	of Vaivaswat Manwantara	17,280,000
Treta Yuga (28)	of Vaivaswat Manwantara	1,296,000
Dwapara Yuga (28)	Same as above	864,000
Kali Yuga (current)	5000 <i>HYs</i>	2056*
Grand Total (up to present day)		1,960,850,056

* On 4th April, 2000 AD, Kali Yuga will have spent 2056 years of its total span of 5000 human years.

We have noted how the seer-scientist Barkali measured time. We have also seen how the ancient Indian seers visualised time as a spiral of time-scales arranged in a hierarchical order, with various levels in the spiral collapsing into the largest among them. However, it needs to be kept in mind that the minutest unit of time contains the same properties as the largest. We have also noted that we are currently in the Swetavaraha Kalpa, which marks the first day of the first fortnight of Balsheshwara Prajapati — this is one day of the Brahma time-scale. The lifespan of one universe is the age of Upeshwara Prajapati.

These calculations also indicate how many human years have been spent since *this* universe began, and how many years are still to go. In the midst of these two, which constitute the past and the future respectively, stands the present. Relative to human capability, the past is unmanifest and so is the future; so the present, in that sense, is nothing but an insignificant state between the unlimited past and unlimited future.

It needs to be emphasised that the calculation of the age of the current universe merely accounts for half a Tithi — a day — of the Brahma time-scale. To this we add the time for the night, and only then will one day-night unit of the Swetavaraha Kalpa be accounted for. Thirty such periods account for a Brahma month, and 12 such months account for the age of Balsheshwara, ie. 100 years of its lifespan.

FROM THE INFINITE TO THE TINIEST: UNITS OF TIME

The seer-scientists did not only look at the multiples of a unit of time, such as a day or an hour. They also analysed, identified and named the subdivisions of a small unit of time — say, a Muhurta. The following table enumerates the

subdivisions of a year down to the tiniest unit of time known as *Lomgarta*. The literal translation of this word is 'hole through which a hair can pass'. The scale from this tiniest unit to a year runs as follows:

- 15 *Swedayana* form one *Lomgarta*
- 15 *Lomgarta* form one *Nimesh*
- 15 *Nimesh* form one *En*
- 15 *En* form one *Prana*
- 15 *Prana* form one *Idam*
- 15 *Idam* form one *Etarhi*
- 15 *Etarhi* form one *Kshipra*
- 15 *Kshipra* form one *Muhurta*
- 15 *Muhurta* form one day
- 30 *Muhurta* form one day-night
- 15 day-nights form one *Paksha* (fortnight)
- 2 *Paksha* form one *Maas* (month)
- 6 *Maas* form one *Ayan*
- 2 *Ayan* form one year.

According to Barkali's calculation there are 10,800 *Muhurta* in one year.

To give an idea of how the tiniest unit of time relates to the endless expanse of time, Barkali visualised the vast canvas of time as an endless, shore-less ocean and compared *Swedayana* with the tiniest drop of rain.

DIRECTION, SPACE AND TIME

(*Dish, Desha and Kala*)

For *Dish*, or *Dishha*, we use the term 'direction'. There are eight directions, of left-right, east-west, north-south and the intermeditate directions. Two extra directions, of up and down (or zenith and nadir), are added to these. These 10 directions have been quoted in *Shatpatha Brahmana*.⁹

Space denotes the area occupied by a material object. Following the conquest of space by mankind, the word 'space' has acquired a new, specific connotation. In this discussion, however, the word 'space' is being used in its older meaning of a continuous area or expanse. When we speak of space in relation to an object, we indicate its location.

The frontiers or limits of an object or space define the directions — on one side is the east and on the other west, for example. Time is the period required for the existence, consumption or use of an object. The expression of a particular object existing within specific boundaries and from one particular time onwards defines the interrelationship of time, space and direction.

When we see an object we become aware of the area it occupies and its form. Then we become aware of its properties, name, functions etc. The totality of form, attributes, shape, name, function and so on delineates the area of an object. But the seer-scientists tell us that this understanding has serious flaws. They assert that our eyes can never see the object we can touch and the object we see can never be touched by us. In other words, the visible universe is altogether different from the touchable universe.

This may seem untenable as a theory, so we shall probe a little deeper. Our eyes enable us to see an object. Our physical body and its limbs, such as the arms and legs, enable us to touch an object. The supraphysical energy by which our eyes are sustained is solar; it occupies no area at all, which is why our eyes can cover enormously long distances and vast expanses, and can absorb extremely large landscapes or scenes. It is true that the sockets of our eyes occupy a limited space, but the supraphysical energy nurturing the sense organ of our eyes does not occupy any area. On the other hand, the supraphysical energy of our bodies emanates from

Prithwi (earth) and occupies a certain area. This is called *Bhhota*, which occupies space, in contrast to the solar vital energy and the vital energy sustaining the eyesight.

We can see an object only if it remains at a certain distance away from our eyes. If the object were to touch our eyeballs, we would be unable to actually see it. At the other extreme, we know that when an object is taken too far away from our eyes, it becomes invisible to us. So an object can be seen only within the parameters of a given distance. Conversely, an object must be brought within the reach of our limbs for us to be able to touch it. Common sense tells us, therefore, that it should be possible to distinguish between visible and touchable objects.

Light, the property of the sun, lends the faculty of seeing to our eyes, founded on the vital energy which is 'wrapped around' light. Rays of lights assume the shape of the object with which they interface and enable us to see it. This happens when a cluster of light rays interfaces with an object and is projected into our eyes in the shape of that object. We see an object only when such a bundle of light rays comes in contact with our eyes. Alternatively, it could be said that we don't actually *see* the object, but rather we see the light rays reflected from it.

Every object radiates a cluster of rays of supraphysical energy, or Prana, in a kind of 'case' around the object. This 'case' causes the eyes to see the object. The cluster of vital energy emitted from the centre or heart of an object becomes smaller as we move away from this centre. This explains why an object looks smaller the further we travel away from it. This relative attribute of size merely confirms that the visible 'case' of an object is different from the mass of the object we touch.

All phenomena can be grouped into three categories. One includes those diversities in our phenomena which

cannot be grasped by the sense organs, such as Ishwara, Prana, Atma etc. These are supraphysical phenomena which exist autonomously.

In the second category we find phenomena whose existence is felt, but which are not autonomous. They exist in our perception, in other words. These include directions like east and west, distance and proximity, curves, straight lines, angularities, the attribute of quadrangular-ness and so on. We experience them in our day-to-day affairs, but they have no autonomous existence.

In the third category are grouped the phenomena which can be grasped by our sense organs and which also have an autonomous existence. They include such objects as pots, houses, the sun, moon, planets and stars, the birds and beasts, the hills, rivers, oceans, vegetables, flowers and so forth. Our present discussion of the attributes of seeing and touching is relevant only to this third category of phenomena.

These three categories may be labelled existential, perceptual, and percepto-existential. For the purposes of this discussion, we should relate to these categories by the definitions given here, rather than in the sense in which we generally use them. Earlier we described the mass of an object as a 'touchable mass', and the 'case' of an object as a 'visible case'. A deeper exploration, however, reveals that in fact even the 'case' of an object is not seen. The 'case' is incorporated into the existential aspect of the object, and the 'case' of the object which we see is actually the creation of our mind. All that we see with our sense organs of sight is our own creation and is the product of *Prajnana Manas*. The 'case' of an existential mass is described as the inner world of that object. Atma Prajapati, located at the heart or centre of that object, is witness to the existential entity — Prajapati is the regulator and the 'seer' of existential entities.

The entire universe, composed of five Bhootas or basic elements that make up this universe, is the inner world of Ishwara, also called *Vishweshwara*. (Vishwa is the universe and Ishwara is the controller of that universe.) Since human beings are unable to discern the inner world of any other human beings with the aid of the sense organs, how can we discern the inner world of Ishwara which constitutes this great universe? We humans can only know what is going on in our own inner world with the help of our sense organs. We can know our own experiences, our past, and so forth. In other words, for us human beings, the sum total of our experiences constitutes the truth. So we are the creators of all that we know, hear, see or experience. Unfortunately, some philosophers have interpreted this formulation to mean that the world is an illusion and therefore false. This colossal mistake has led to a disastrous misinterpretation of the Indian view of life and the universe, with grave social and historical consequences to which we have alluded elsewhere in this volume.

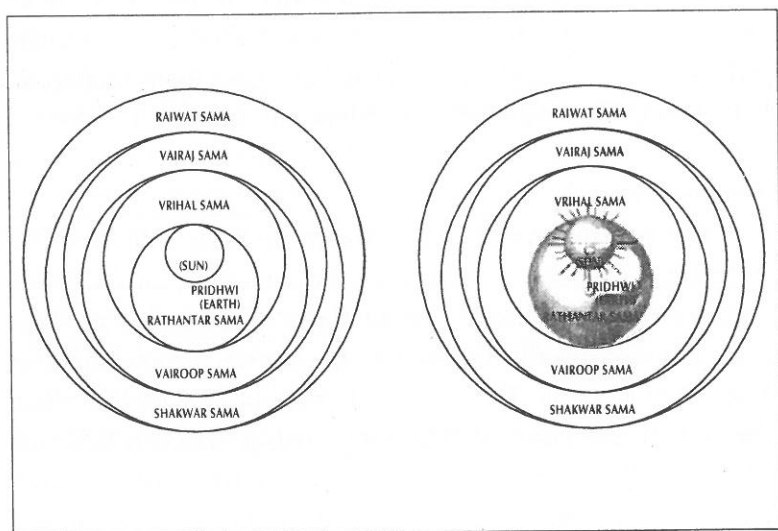
An object has a shape, within which its mass is located. This shape is an attribute which is reflected in a circular, triangular, quadrangular, hexagonal or other form related to that object. The mass of the object has specific properties and functions and its outer form delineates its end, boundary or termination.

The external form — the meter¹⁰ in which the mass of an object is encased — indicates the direction, latitude and longitude of its location. The attribute of meter is Rik. The space encased by the meter (ie. the mass) is Yaju and the 'case' itself is Sama. The 'case' is to the encased matter what a book is to the content. The relationship between Rik and Yaju is parallel to the correlation between the container and substance contained within. The mass and form are wrapped

in a 'case' of supraphysical energy which is the source of all objective existence. It is so difficult for us to comprehend this 'case' of supraphysical energy precisely because it does not have a form and is unmanifest. We have seen that these are the attributes of Prana. The same supraphysical energy is the formless, endless Kala (eternal time) which the seer-scientists describe as a symbol of Brahma.

Let us put it another way. What has been described earlier as metre becomes manifest only in relation to the mass. The limit of a mass expands into the vast limits of Kala, which is invested with Prana. In other words, the manifest form of that Great Kala — eternal time which is the endless, unmanifest, formless expression of Prana — is manifest time.

Formless Prana occupies no space and is at the centre of a mass. It transforms itself into a glowing 'case' around an object. The space which this 'case' occupies is experienced by the intercession of light which causes that object to be seen by our eyes. The glowing 'case' of the mass of the object wraps it around from all sides and permeates it completely.



The limit of this radiant 'case' is known as *Rathanatar Sama*, which human vision is unable to see fully. Our eyes can relate only to a small part of it. This expansive 'case' surrounding the mass of an object comprises 1000 Sama 'cases', or 1000 radiating rays. Each ray subsequently radiates 1000 rays of its own. One small ray of this vast, expansive, glowing 'case' causes the visible form of the object.

All physical objects in the world have their identity, which is the expression of their material form. Each object's individuality defines it. When its identity is examined closely, the three Vedas of Yaju, Sama and Rik which comprise it can be observed. An object manifests itself in its form, shape and image. The first to manifest itself before us is the form, called *Moorti*. In the *Vedas* this has been described as the metre (*Chhanda* or *Vayonadha*). This is the circumference of the object that encases the substance within.

However, every object with form has the attribute of continuous change. The property of motion within it causes change, transforming new into old. This property of motion determines the state of that object and is its life. Prana is in continuous motion in the object, preserving its form and regulating its function. This property of motion is Yaju, and is associated with Rasa. *Prana Mandala*, the circle of supraphysical energy, radiates from the object by virtue of its quality of upward movement, even while it continues to be bound to the centre of the object. This extremely subtle, upward-moving, expansive Prana is known as Teja, and is *Sama Veda*. This is the third facet of the identity of an object.

The manifestation of an object as its form is metre, or Chhanda, which is Rik. This is the attribute of direction. The manifestation of motion in an object is Rasa. This is the mass, and is Yaju. The attribute of space is Desha, while the manifestation of Teja is its expanse. This is Sama, the

glowing 'case' of the object. The unmanifest, formless attribute, which is the ultimate substratum of all three Vedas, is known as Kala.

Let us now concentrate on the form of an object, which is the Rik. Even a form such as a circle has three dimensions, i.e. the circumference, diameter and centre. Rik is the diameter, while Sama is the circumference and Yaju is the centre. This concept is reflected in Yajnya which continues without cessation in the process of creation. We are able to understand this process fully if we follow the practice of the rites of Yajnya in the *Vedas*.¹¹ This is akin to a laboratory experiment based on a scientific theory.

The circumference is roughly three times that of the diameter; on the basis of this fact, the principle of *Tricham Samah* (Sama is three times Rik) has been enunciated. We find that all three Vedas are discernible in a closer examination of just one facet of an object — namely, its form. The form or metre of an object is perceptual, and can therefore be compared with direction. None of the circumference, diameter or centre of an object occupies space. Its mass alone occupies space and is wrapped in metre.

Let us now look closely at Yajurveda, or the facet of motion. This is Prana which, as we have said before, does not occupy any space and therefore does not have the attributes of circumference, diameter and centre. Motion reflects the supraphysical energy of Prana, and has two features: outward flow (*Gati*) from the centre towards the circumference, and inward flow (*Agati*) from the circumference towards the centre. When Prana flows from the centre towards the circumference it is said to be 'going', and when it flows in the other direction, from the circumference towards the centre, it is said to be 'coming'.

Gati, the outflow, is Indra. Agati, the inflow, is called

Upendra, who is known as Vishnu. These two are twins, and the continuous flow of supraphysical energy in the form of inward and outward motion is described as a 'jealousy' between Indra and Vishnu. These two are unable to defeat each other, nor does any other energy force defeat them. This rivalry has been described in the *Vedas* in a very picturesque manner.¹²

The meaning of this allegory is that a continuous state of dynamic stasis exists in our universe between the outflow and inflow of supraphysical energy. Every outflow is preceded by an inflow, and every inflow is followed by an outflow. This balance between the flow of energy or life-force is what is being described in the statement that neither Indra nor Vishnu is ever defeated.¹³

The balance of inflow and outflow of energy causes a state of rest, or dynamic stasis, which signifies existence. The balance occurs at the centre, which is known as Brahma (or *Brahmaa* in the *Puranas*), and regulates inward and outward motion. In other words, Brahma regulates Indra and Vishnu. The inward motion is Rik, the outward motion is Sama, and the aggregation of these motions resulting in rest or existence is Yaju.

Before we conclude this chapter, it will be helpful to consider the Indian concepts of Desha and Kala as they are represented in the richness of India's ancient literature, scientific studies and philosophical formulations. We find that Desha (space, region) is a part of the total space-time dimension and is usually visualised as a complementary unit in the twin concept of Desha-Kala (space-time). The second aspect of Desha is geographical, denoting a country, region, the 'home country', 'home region', or a notion of time. The earlier synonym of Desha is Dish, which means direction or quarter, and which again is paired with Kala (time) to signify a relative concept of space. The difference between the two concepts of Desha and Dish is that the former is a static notion

whereas Dish is related to movement. All events take place in a Desha-Kala, which is usually calculated according to the first act of creation — time is the zero point in that great event, beyond which no reckoning of time and space can be made.

Akasha is infinite space or the great expanse, while Dish is finite space, perceived as something encompassed through movement from one point to another. If we know the beginning and the end of something, we can measure the interval or scan the direction of the movement. We can safely state that Desha is the measured finite space, while Dish is the perceived direction of the process of movement. Dish/Desha has been conceived of as the substratum of all occurrences. In other words, every event in the world occurs within the frame of relative time and space, and as such is necessarily linked to all other events in a chain of succession (*Krama*). The ritual of recalling the present time and space at the moment of entering into any undertaking (*Samkalpa*) is followed by the ritual of 'suspension of space' (*Digbandha*) and suspension of the breath process (*Pranayama*), which is temporal. As a consequence, every creative act exists within time and space and yet has an a-temporal and a-spatial abstraction.

The idea of space has been visualised in three different ways in Indian thought. Firstly, space is one of the five elements, designated as Akasha. Secondly, it is an indicator of relative proximity or distance and relative direction of movement in relation to the focal point. This focal point is seen to be constant in the process of such calculations. Lastly, space is a geographically-bound physical notion.

There is a subtle distinction between Dish and Desha, because Dish is purely direction, enumerated as left or right, east or west, north or south (*Prachi, Pratichi, Udichi*), or the four corners. *Agnikona* is south-east, *Nairata* is south-west, *Vayavya* is north-west and *Ishana* is north-east. These

are the intermediate directions, in addition to which there are the two directions of up (*Urdhva*) and down (*Adhah*), or zenith and nadir. These 10 directions have been mentioned in *Shatpatha Brahmana* (6:8:2:12).

From this we can see that Dish is a relative term, a concept through which the location of a point as related to an observer is indicated. Desha, on the other hand, is unrelated to the observer and is a division of finite space. The root from which Desha is derived is a very significant verb: Dish means 'to direct', 'to instruct', 'to indicate'. This sense is conveyed in Sanskrit when there is a prefix such as *Upa-Desha* (sermon), *Aa-desha* (instruction), or *Sam-desha* (message). Loka is a wider concept, covering the meaning of Dish, but the reverse does not apply: Dish does not encompass the whole meaning contained in the term 'Loka'. Thus, the transcendental world may be called *Para-loka*, but never Desha, which is bound to the known universe.

Panini has used the term Dish in various connotations: in the sense of locality and country, or region and the people of that country. Charaka, the great proponent of Ayurveda (the ancient Indian medical system), indicates in one of his Sutras that Desha means both land and the body of the patient. This meaning has great relevance in Agama literature where the human body is understood as a microcosm.

Some Indian philosophical systems hold Dish and Kala to be substances (*Dravya*), while others consider Dish to be an objective reality which exists independently of experience. Still others assert that Dish is an object of perception. All these systems interpret 'space' in terms of directions demarcated by reference to the movements of the sun. In other words, Dish serves as the connecting link between the solar motion and the object.

In summary, time (Kala) and space (Desha) have an important role to play in Indian systems of thought. The Indian mind is awake to time and space here and now, as well as to time and space beyond.

- 1 Glen Peter Kezwer, *Meditation, Oneness and Physics*, p. 65.
- 2 Bertrand Russell, *The ABC of Relativity*, p. 35.
- 3 *ibid*, pp. 36–37.
- 4 *ibid*, p. 35.
- 5 *Encyclopedia Britannica*.
- 6 In the *Vedas* the present time is also called the ‘creation-time’ or *Srishti Kala*.
- 7 *Aaseedidam tampa bhootam aprjnyam alkashanam apratrkyam anirdeshyam prasuptabhiva sarvatah* — *Manusmriti* 1:5.
- 8 *Anoraneeyanmahato maheeyan atmasyajantornihito guhayam* — *Katha Upanishad* 2:20.
- 9 *Shatpatha Brahmana* 6:8:2:12, cited in *Kalatattvakosha* (“A Lexicon of the Fundamental Concepts of the Indian Arts”), Vol. II, p. 159.
- 10 *Chhanda* (see Glossary).
- 11 These rites are explained in detail in *Shatpatha Brahmana* (amongst other works).
- 12 See our chapter “Indra and Vishnu: Two Warring ‘Gods’”.
- 13 See our chapter “Indra and Vishnu: Two Warring ‘Gods’”.



SECTION FOUR

The Seer-Scientists and the Gods

*yan manasa na manute yenaahur mano matam
tadewa brahma twam viddhi nedam yad idam upasate*

That which one cannot comprehend with the mind,
But because of which, they say, the mind feels...
Know that alone as Brahman
And not what people do worship here (as an object).

KENOPANISHAD 1:6



CHAPTER TEN

God, Gods and Goddesses



GOD HAS A CENTRAL PLACE IN EVERY RELIGION. BUT what is religion? The *Concise Oxford English Dictionary* defines religion as “the recognition of a superhuman controlling power, and especially of a personal God, entitled to obedience”. According to the 1996 edition of the *Encyclopaedia Britannica*, within the Christian perception the following characteristic features dominate: 1. God as personality; 2. God as Creator; 3. God as Lord of history; and 4. God as Judge. God is also viewed as the creator of heaven and earth. It is believed that he fashioned humans according to the divine image and made creation subject to them.

The Old Testament focuses on God as the Lord of history. In this Testament, God selects a special people and contracts a special covenant with them. Thus the divine agent binds this “people of God” in a special way. He does so by setting before them the establishment of a divine dominion as a definite goal of salvation, and admonishing them through the prophets by the method of stick and carrot — proclamations of salvation for the good and calamity for the unfaithful. “The Israelite belief that the disclosure of God comes through the history of divinely-led people leads, with an inner logic, to the proclamation of God as the Lord of world history and as the Judge of the world.”¹

The New Testament faith in God is closely bound to the person, teaching and work of Jesus Christ. Jesus understood himself as the fulfiller of the promise of the Messiah—Son of Man, who introduces the faithful to the

Kingdom of God. Faith in the Son brings about a oneness with the Father. Thus, the Son becomes the mediator of the glory of the Father for those who believe in him.

The Islamic view of God is enunciated in the *Quran*,² in a rigorously monotheistic doctrine. God is one and unique, he has no partner and no equal. Trinitarianism — the Christian belief that God is three persons in one 'substance' — is thus vigorously repudiated. The God of the *Quran*, however, is also a personal God; whenever someone in need or distress calls upon him, he responds.

Every religion has one or more terms for God, and sometimes also for lesser deities. Islam is the exception, for Allah is the personal name of the one true God. Nothing else may be called Allah, and the term has neither plural nor gender. In other faiths, the word 'god' may be made plural — gods — or feminine — goddess.

Islam rejects the characterisation of God in any human form. The *Quran* denounces idolatry and eliminated all gods and divinities worshipped by the Arabs in their sanctuaries, the most prominent of which was Ka'bah sanctuary in Mecca itself.

Many different sects have emerged within Islam, holding different beliefs. For example, Al Khawaridj, Al Shia and Al Nusayriyya consider Ali Ibn Abi Talib to be a God, whereas Al Djabriyyah, Al Mutazzila and Al Kadariyya deny the qualities of God. The Al Ashaira, Al Matridiyya, Al Zaidiyya, Al Imamiyya and Al Ismailiyya declare that the world has two 'directors', the first of whom is God and the second the soul. Al Bahaiyya consider their leader, Baha Allah, to be a God. The Druzes consider 'Al Hakim bin Amr Allah al- Fatimi' to be a God.

Theologians who regard themselves as defenders of the Christian, Judaist or Islamic faiths do not necessarily defend

theism. The influential 20th-century Protestant theologian Paul Tillich, for example, regards the God of theism as an idol and refuses to construe God as a being — even a Supreme Being or an infinite being above finite beings.

Unlike Zeus or Wotan, God in the developed forms of Judaism, Christianity and Islam is not construed in a relatively plain anthropomorphic way. Anything whose existence could be verified, or whose presence was even faintly adumbrated in experience would not be the God of Judeo-Christianity. He must be transcendent to the world, which makes it impossible to encounter or experience him.

Islam and Christianity both have a prophet or an agent appointed by God to deliver his message. Islam has Hazrat Muhammad and Christianity has Jesus Christ. Muhammad's chief significance is as founder of a state and of a religion. In his lifetime he created a federation of Arab tribes which, less than 20 years after his death, had defeated the Byzantine and Persian empires, occupied a vast territory from Libya to Persia and subsequently developed into the Arab or Islamic Empire. Islamic doctrine maintains that Allah (God), rather than Muhammad, is the founder of the religion, but that the latter played a highly significant role in fostering the nascent religion. Jews and Christians were assigned a special status as communities possessing scriptures and known as the "people of the Book" (*Ahl al-kitab*). They were granted religious autonomy, but were required to pay a per capita tax called *Jizyah*. 'Pagans', on the other hand, were required to either adopt the Islamic faith or die.

'Jesus' was his given name, meaning 'Yahweh saves', or 'Yahweh will save', while 'Christ' was the Greek translation of the title 'Messiah'. Some passages of the New Testament still use 'Christ' as a title, but it is evident from Paul's usage that the title became simply a proper name very early on.

Most of the Gentiles took it to be a proper name, and thus it was as 'Christians' that the early believers came to be known. In the most precise language, the term 'Jesus' was reserved for the earthly career of the Lord; but it seems from liturgical sources that it may actually have been endowed with greater solemnity than the name 'Christ'.

Within a few years of the birth of the Christian movement, Jesus, Christ, Jesus Christ and Christ Jesus could be used almost interchangeably, as the textual variants in the New Testament indicate. Only in modern times has it become customary to distinguish clearly among them in order to differentiate between the Jesus of history and the Christ of faith — and this only in certain circles. Theologians and many churchgoers still use phrases like 'the life of Christ' because they regard 'Christ' primarily as a proper name. The declaration that Jesus Christ is the son of God, conceived by the Holy Spirit, born of the Virgin Mary, is one of the most universal in the New Testament.

Christianity and Islam alike believe that it is their duty and right to save non-believers (a category which includes followers of other religions) by converting them to their faith. This belief is the sanction behind the destruction of pagan people and of their temples and cultures. These two religions, in fact, have developed by destroying earlier belief systems, by engaging in violent conflicts and by large-scale destruction of those who refused or resisted the expansion of their ideologies.

When they encountered resistance, as was the case in India, a massive exercise in rewriting history was undertaken. Imaginary conflicts between one section of Indian society and another were superimposed on the pages of history. Earlier belief systems were described as undeveloped, backward, tribal or aboriginal. It was suggested, without any historical evidence, that the prevailing world view in India

also relied upon the destruction of earlier faiths. At this point we shall merely underline one fundamental difference between the God in Christianity and Islam and the earlier gods of Indian and other people. The God of Christianity and Islam is a jealous God,³ intolerant of other gods and demanding that his chosen people either force the followers of other gods to repudiate them or face annihilation.

In contrast, the earlier gods had no such animus. They gave everyone full freedom to choose their own god or gods. Since life was seen as of value in itself, the interaction between a god and his or her people was to preserve and nourish life. The concept of imposing death and destruction upon non-believers in the name of God did not arise before the Christians and Muslims began their 'civilising missions'.

In addition, the view of human beings as sinners who can attain salvation by propitiating God through his agent did not exist in the world of the earlier gods. In the *Vedas* (and the Indian tradition flowing from them) human beings are seen to have unlimited potential, and to be able to transcend the limitations imposed by the conventions of the physical universe. A person's quest for perfection, liberation or bliss is a personal journey, which calls for dedicated endeavour and persistence until the goal is reached. A person may even stop en route if (s)he becomes tired or distracted, and may then summon up new reserves and recommence the journey.

As we have noted earlier,⁴ the Vedic view of human beings is of an integrated whole comprising the body as the exterior, the mind (Mana) or intellect (Buddhi), and Atma as the Self. Atma has two states: Jeeva, the regulating inner universe, and Ishwara, the outer universe. Our readers should now be familiar with such words as 'Ishwara' and 'Parmeshwara', which occur in the *Vedas* and their auxiliary branches. These terms have been falsely translated as 'God'.

In actuality, they do not convey the sense of God as he stands in Christianity or Islam. We shall return to this subject later, after a brief meeting with the 'modern' view of the gods and goddesses of the pre-Christian era.

The discovery of the royal Hittite archives at Bogazköy (ancient Hattusa) in 1907 made available for the first time a mass of indigenous literary evidence of an Anatolian civilisation belonging to the 2nd millennium BC, before the arrival of the Phrygians. The discovery of these archives, written on clay tablets, has led to a focus on the religion of the Hittites in various accounts of the early religions of Asia Minor.

Very early evidence of religious beliefs has come to light at the mound of Çatal Hüyük, to the south of modern Konya in Turkey. Excavations here have yielded remains of a Neolithic village of mud-brick houses, many of which could be identified as shrines. They are dated by radiocarbon to about 6500–5800 BC (calculated with a half-life of 5730 years). Huge figures of goddesses in the posture of giving birth, leopards, and the heads of bulls and rams are modelled in high relief on the walls of some of these shrines. A series of stone and terracotta statuettes found in these shrines represents a female figure sometimes accompanied by leopards and, from the earlier levels of excavation, a male figure, either bearded and seated on a bull or youthful and riding a leopard. The main deity of these Neolithic people was evidently a goddess with whom were associated both a son and a consort.

At Hacilar, near Lake Burdur, a somewhat later culture was discovered. Here again were found statuettes of goddesses associated with felines; but, as in the later levels at Çatal Hüyük, the son or consort is absent. Archaeologists have uncovered a series of remarkable statuettes from central Anatolia (19th century BC). The majority of these are abstract, disc-shaped idols without limbs; many have two, three or even four heads,

and others bear small male figures in relief on their chests. In one case this figure is accompanied by a lion. There can be little doubt that this is another representation of a divine family, consisting of a mother goddess with consort and child or children. From an archeological level at Bogazköy, contemporary with Kültepe, a limestone mould of a 'mistress of animals' has been uncovered. She is a nude goddess standing on a pair of felines and holding aloft an animal in either hand. Moulds for a pair of figures — a bearded god and a goddess — have been found at several sites at a somewhat later level. The god carries various weapons or emblems and the goddess usually holds a baby.

In an old Assyrian tablet (a flat slab of stone), such features as dress, attendant animals, weapons, actions and attitudes distinguish a whole pantheon of deities. Among these are several weather gods, all associated with a bull, the weather being depicted in the form of rain falling upon the god. Other deities in this tablet are a warrior god holding various weapons, a hunting god holding a bird or hare, a god in a horse-drawn chariot, another in a wagon drawn by boars, a goddess enthroned and surrounded by animals, a nude goddess, and several composite beings.

As a result of these remarkable archaeological discoveries the history of Asia Minor is well documented for five centuries (c.1700–1200 BC). These documents reveal a region inhabited by a number of distinct peoples: the Hittites in the centre, the Luwians in the south and west, the Palaians in the north and the Hurrians in the south-east. Each of these nations had its own pantheon and its own names for deities, so that the result is a bewildering array of divine names.

Even in cases where a deity is denoted by a logogram (a sign or signs standing for a word) rather than by a name — to indicate weather god, sun god, moon god and so forth

— it seems that the deity of each 'city' was regarded as a distinct personality. Moreover, there are distinct weather gods, such as the weather god of lightning, the weather god of the clouds, of the rain, of the palace, of royalty, of the sceptre, and of the army, and each of these gods is conceived of as a separate personality.⁵

The most widely worshipped deity of Hittite Anatolia was clearly the weather god. Under the title 'weather god of Hatti', he became the chief deity of the official pantheon, a great figure who probably represented the nation in its dealings with foreign powers. Thus the treaty with Egypt is said to be "for the purpose of making eternal the relations which the sun-god [of Egypt] and the weather-god [of Hatti] have established for the Land of Egypt and the Land of Hatti."⁶ His name in the Luwian language, and probably also in Hittite, was Tarhun (Tarhund); in Hattic he was called Taru, and in Hurrian, Teshub. Tarhun's spouse, the great goddess of the city of Arinna, was exalted as patroness of the state. Her name in Hattic was Wurusemu, but the Hittites worshipped her under the epithet Arinnitti. She was always known as a sun goddess. The weather god of another city, Nerik, was considered to be the son of this supreme pair, and they had daughters named Mczzulla and Hulla and a grand-daughter called Zintuhi. Telipinu was another son of the weather god and had similar attributes.

There was also a male sun deity, as distinct from the sun goddess of Arinna. His name in Hittite was Istanu, borrowed from the Hattic Estan (in Luwian it was Tiwat, and in Hurrian it was Shimegi). There was also a moon god (known as Arma in Hittite and Luwian, and as Kushukh in Hurrian).

The god of hunting appears frequently on Hittite monuments, holding a bird and a hare and standing on a stag. From descriptions of the statues, it appears that this is the deity denoted in the texts by the logogram KAL. The

warrior god also appears, although his Hittite name is concealed behind the logogram ZABABA, the name of the Mesopotamian warrior god. His Hattic name was Wurunkatti, the Hurrian counterpart of which was Hesui. His Hattic name meant 'king of the land'.

The Hittite goddess of love and war is disguised under the logogram of the Babylonian ISHTAR; she was evidently much revered. Her Hurrian name was Shaushka. She was represented as a winged figure standing on a lion, wearing a distinctive robe gathered at the knees and accompanied by doves and two female attendants. The mother goddess, Hannahanna (or 'the grandmother'), was closely associated with birth, creation and destiny. It is impossible to enumerate the lesser deities here, many of whom are mere names to us. Among them were mountains, rivers and springs, and the spirits of past kings and queens who had 'become' gods at the time of their death. The Earth Mother, in ancient religions, occupies a central place, signifying an eternally fruitful source of all that exists.

These ancient gods of many Asian and European countries have been so completely forgotten nowadays that we are unable to study them directly. There was a time when they satisfied the religious needs of their devotees, although they subsequently came under attack from new gods appearing on their horizon. They have been completely replaced now, and persecution of them continues today, albeit in a modified form. Their new persecutors are staid academics rather than theologians and religious zealots.

To these 'modern' scholars, the early gods are not false but primitive. They hold the opinion that these gods represented the attempt of the primitive mind to express, however imperfectly, its groping for a unitary principle through nature's symbols and objects. At that stage of human

evolution, it was difficult for the human mind to rise above the sensuous to the intellectual and the spiritual, and from the many to the one. That was left for a later generation to achieve, reaching its zenith in Christianity and modern Europe. If gods are born of religious urges and spiritual intuitions, however, it is difficult to see how modern European Christians are superior in this respect, and how their 'one God' could be truer than the 'many gods' of their ancestors.

If we look at the word 'God', we find that it retains the memory of the idea of a deity of a more intuitive people and of more spontaneous times. This is so despite the fact that it has acquired a forced, intellectualised, outward meaning appropriate to the mentality of the present age. Etymologists connect this word 'God' with the Gothic *Guth*, which in Sanskrit is *Huta*. This means 'one to whom offerings are made' — in other words, one who is worshipped. This connects us to the period of evolution when fire was a great living symbol of the deity within and around us. In later times, this symbol was denounced as nature-worship by some sects, but it had received universal acceptance previously, along with the sun and the sky as deities. Even Moses glimpsed his God through the medium of fire. And in the Old Testament itself, certain hymns are considered 'nature hymns' by its scholars.

Etymologists also connect the word 'God' with the German word *Gotse*, the original meaning of which was an 'image' or a 'figure'. In the Norse language also, the word meant 'image of a deity'. So this word may have referred to the practice of worshipping a God through various images and figures, a practice quite common among different peoples around the world in all periods of human history.

There is another notable feature of the appellation 'God'. Spengler tells us that the old German word for God "was a neutral plural and was turned into a masculine

singular by Christian propaganda.”⁷ The same is true of the word in the Norse and Teutonic languages. It was after the conversion of heathens that God changed gender and number. This can scarcely be regarded in itself as the deepening of God’s meaning and conception.

The Hebrew word *Elohim* is also plural in origin, form and sense, as is the word *El* used in the Semitic tradition. *El* is not the name of a universal deity, but is a common name for different deities in the Semitic world. So we can see that the untutored and more spontaneous intuition of the human race excludes neither the plurality of gods nor the use of images and nature symbols. The denial of these intrinsic aspects comes about as a result of an over-conceptual mental framework or dogmatism developing faster than understanding.

Of late, the God of Christianity has been in serious trouble. The Death of God movement, a radical Christian theological school of mainly Protestants which arose in the United States during the 1960s, evoked prolonged attention, response and controversy. Basic to most of the varied viewpoints grouped by this school is the idea that belief in God is impossible or meaningless in the modern world, and that fulfilment is to be found in secular life.⁸ Protagonists of this view contend that talk about God is linguistic nonsense, since it purports to deal with a transcendent reality about which meaningful talk is no longer possible.

Another view is held by Acosmists, who assert that God is the sole and ultimate reality and that objects and events have no independent existence. Acosmism has been equated with pantheism, the belief that everything is God. It has also been used to describe the philosophies of Vedanta and Buddhism, which is decidedly far-fetched.

The God of the various religious traditions discussed above has no place in the *Vedas* and the ancient Indian

tradition. The words occurring in Indian classical literature which most closely approximate the flavour of God are Deva and Devata, and indeed these have been translated as 'deity' or 'god' (with a small 'g'). The word Devi (the feminine form of Deva) has been translated as 'female deity or goddess'.

Let us return to the *Encyclopaedia Britannica* for a definition of the word 'deity'. There we find it described as a god or goddess in the context of such figures as a solar or lunar deity: "God or Goddess conceived of as sovereign, steady, and all-seeing, often identified with the supreme deity of a culture or with the king or ruler." But this is quite false, in reality. Translating Ishwara or Deva as 'God', and Devi as 'Goddess' is merely an attempt to impose Western cultural constructs on the Indian world of ideas.

The same misrepresentation is evident in the presentation of Dharma as 'religion'. Dharma means the supporting principle of the whole of creation. Every individual person, object and phenomenon in the universe has his, her or its own Dharma. For instance, it is the Dharma of fire to burn and to rise, while it is the Dharma of water to soak and to flow downwards. Radiating light and heat is the sun's Dharma, while flowing horizontally and generating sound is the Dharma of wind.

Every human being has his or her Dharma, and the same is true of groups of human beings, namely communities and nations. Dharma includes ethics, duties and responsibilities; it incorporates individual and social moral codes and natural attributes, qualities and characteristics. This is reflected in the translation of the word 'Dharma' offered by Sir Monier Monier-Williams: "That which is established or firm, steadfast, decree, statute, ordinance, law, usage, practice, customary observance or prescribed conduct, duty, right, justice, virtue, morality, religion, good works, according to the nature of anything, etc."

Unlike religions which are based on uniformly enforced

edicts, Dharma has a multi-layered 'structure' and is specific to situations, locations, vocations, relationships and commitments, both voluntary and enjoined by society and polity. The fundamentals of Dharma are eternal, but its manifestations change, and this is why the Indian tradition teaches all beings to live according to *Sanatana Dharma*, the eternal way of life.

Sanatana Dharma is not a religion in the sense that this word is understood in the West. In fact, Dharma is not religion at all. It relies neither upon one god, one prophet or messenger of God nor one 'book'. Nor does it decree that all non-believers are infidels (*Kafirs*). On the contrary, Sanatana Dharma directs that everyone on earth should be helped and guided to live according to his or her character, attributes and specificity, nature and dispositions. (Sanatana Dharma is discussed in greater detail in our chapter "Concepts, Definitions and Metaphors".)

Western scholars have often expressed bewilderment at the plurality and diversity of the way of life and beliefs of the Indian people. "The vastness and heterogeneity of Hinduism offer enormous challenges to anyone attempting to describe them..."¹⁰ "Hinduism, while offering many striking parallels to other great religions, nevertheless cannot be compared to any of them."¹¹ This scholar is led to be "tempted to see not so much a parallel between Hinduism and other religions but between what one could call, for the moment, Europeanism or Americanism".¹² When he speaks thus, Klostermaier is referring to the tradition of Sanatana Dharma, for Hinduism as a term is a mere few hundred years old. It is difficult to say whether this word 'Hinduism' can really encompass the sweep of Sanatana Dharma. Thus, the writer of this current work prefers to use the term 'Sanatana Dharma', with the understanding that wherever the word 'Dharma' is used it means Sanatana Dharma, the eternal path.

This path is based upon the governing principles of the universe which regulate all of creation. It is only when we do not view Sanatana Dharma as religion that the message and meaning of the Veda Vijnana (the science of Veda) becomes comprehensible. It is necessary to emphasise this point because scholars and academics have yet to come to terms with the diversity of the Indian tradition. This includes those who have decried it for this quality of diversity as well as those who have applauded several of its features.

In summary, Ishwara and Parmeshwara are neither God nor gods, and Devata is also not a deity. These terms enable us to relate to the supraphysical universe beyond the universe of physics, and to experience the supraphysical energies and forces which cause creation and sustain this universe. We shall be meeting several of these Devatas and Devis in the following chapters.

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- 1 *Encyclopedia Britannica*, 1996 CD-ROM edition.
 - 2 All references to the Islamic view are based upon the publications of The Institute of Islamic Information and Education, Chicago, Illinois, U.S.A.
 - 3 For several ideas in this section the author has drawn upon *The Word as Revelation: Names of Gods*, a seminal work by Ram Swarup.
 - 4 Please refer to our chapter "Who is the 'I'?"
 - 5 All material about ancient religions in this chapter is drawn from the 1996 CD-ROM edition of the *Encyclopedia Britannica*.
 - 6 *ibid*.
 - 7 Ram Swarup, *ibid*, p. 109.
 - 8 Thomas J.J. Altizer, best known of the Death of God theologians, asserted that the traditional Judeo-Christian God had actually died in the crucifixion of Jesus of Nazareth and henceforth entered into the processes of the secular, historical world. William Hamilton held that the absence or death of God made it possible for men to assume full responsibility and activity in the work and love of this world, freed from dependence on a providential Father in heaven; he also centred on Jesus as the model person and Lord for all Christians. Gabriel Vahanian, who was actually a neo-Calvinist rather than a radical

theologian, held that the Death of God was both a religious and cultural event, occurring because the (essentially pagan) mythological terms in which the Christian faith had traditionally been expressed had become obsolete in a modern scientific society. He stated: "I look forward to the reappearance of faith in a truly transcendent God, rather than the false image of cultural Christianity." Although the term 'Death of God' fell into disuse within a decade, its essential drives and concerns continue in small circles of self-styled "radical theologians"

9 Monier Monier-Williams, Sir, *A Sanskrit-English Dictionary*, p. 510.

10 Klaus K. Klostermaier, *A Survey Of Hinduism*, p. 15.

11 *ibid*, p. 1.

12 *ibid*, p. 1.



This world is her long journey through the night,
The suns and planets lamps to light her road,
Our reason is the confidant of her thoughts,
Our senses are her vibrant witnesses.
In light or dark she keeps her tireless search;
Time is her road of endless pilgrimage.
There every thought and feeling is an act,
And every act a symbol and a sign,
And every symbol hides a living power.
From *Savitri* (Book Two — Canto Six)

MAHARSHI AUROBINDO



CHAPTER ELEVEN

Pure Intelligence and Absolute Consciousness

(From *Sri Tripura Rahasya*: Secrets of the
'Goddess' of the Three Cities)



INDIA'S CLASSICAL LITERATURE RECORDS AND communicates great truths in various forms, most notably in the *Vedas* and the *Puranas*. These forms include poetry, narrative, debate, discourse, dialogue and fable. Real incidents are often interwoven into dialogues and narratives featuring the great seer-scientists as protagonists. A narrative may conceal a deep analysis of the reality of the cosmos and the forces that move it behind the actual, and more obvious, storyline. These forces are dynamic and alive; they speak and interact, and often illuminate and enlighten.

When a seeker of truth experiences these forces intimately, their message and meanings are revealed to him or her with amazing clarity. They can be engaged with in a myriad of ways and manifest in many different forms, since they are alive and not inert. They may be envisioned as either male or female, depending on the nature of the seeker and of the forces experienced.

The ultimate source of all these forces (comprising the creation of which our universe is a part) is described as the Truth, Reality or Supreme Reality. Lesser minds, limited by organised religion and/or barren intellectualism, often dismiss these narratives as mythology. The supraphysical energies and the forces through which they operate therefore remain incomprehensible to those who have not sharpened

the tools of understanding bestowed upon them by nature. Such beings have cast these forces in the mould of gods and goddesses, failing thereby to walk upon the path which would have led them to ultimate reality.

Presented below is a brief résumé of a narrative from ancient India, rich in parable and dialogue, which guides the seeker towards the truth of pure intelligence as Supreme Reality.

Background: *Sri Tripura Rahasya* is an ancient work, held in great esteem for its depth, subtlety and relevance to human well-being. It concerns the three figures in the Indian pantheon — Brahma, Vishnu and Mahadeva — which are the forces of creation, sustenance and dissolution respectively. The story narrates how Mahadeva originally taught the highest Truth to Vishnu, who in turn transmitted it to Brahma. Later, Vishnu appeared on earth as Sri Dattatreya and taught it to Parasurama, with the injunction that it should be communicated to Haritayana.

Haritayana was engaged in invocation of the goddess Shri Meenakshi — another manifestation of supraphysical force — at Madurai in south India when the great sage Narada came to him. Narada enquired of Haritayana what he intended to present to the world, in the form of a historical narrative containing the Supreme Truth. Haritayana was bewildered, because he was unaware that he possessed such ability. Narada then called upon Brahma to bless Haritayana, endowing him with the ability to produce the work. Brahma also told Haritayana that his inability to remember what he had learned previously was a result of his casual approach and undisciplined speech. Brahma further instructed Narada to be the first to read Haritayana's completed work.

This is why *Tripura Rahasya* is also known as *Haritayana Samhita* (verses). It is a work of *Sri Vidya*, which literally means the 'science of success and brilliance'. However, it has

generally been translated as 'the worship of the Supreme Being as goddess'. That this is a misleading interpretation becomes clear as we proceed through the highlights of the narrative. We shall discover that the work elucidates the view of Supreme Reality as none other than 'abstract intelligence'. 'Intelligence' in this context signifies Self-luminosity, while the adjective 'abstract' denotes its unlimited nature. No other agent exists apart from it. Abstraction and manifestation are inherent in the pure Self and these two aspects are given the names Shiva and Shakti respectively. Cosmos and the Self, like the microcosm and the macrocosm, are essentially the same albeit with different modes of reality. They manifest differently, but inherently they are identical.

Outline of the Story: The saint Jamdagni lived in the forest with his wife, Renuka, and their sons. Parasurama was the youngest and the most renowned. Some *Kshatriyas*¹ (members of the ruling clan of the region) clashed with Parasurama but were defeated by him and dared not challenge him again. Their rancour remained, however, so that in Parasurama's absence they attacked his saintly father and killed him. On Parasurama's return, his mother told him about the unprovoked murder of his father, whereupon he became enraged and vowed to eliminate all *Kshatriyas* from the face of the earth.

He placed his father's dead body on his shoulders and set out for the river Ganga (the modern-day Ganges), where his mother had requested the cremation to take place. While passing through a forest, the saint Dattatreya saw Renuka and the young Parasurama. He hailed Renuka as an incarnation of Shakti, the power and energy that governs the world. She blessed him and advised her son to look to Dattatreya for help in times of need.

The story of Parasurama's campaign to liquidate the *Kshatriyas* is an independent narrative and not our concern

here. In brief, Parasurama was persuaded by his elders to desist from persisting in revenge; instead, he sought out Dattatreya who instructed him in the truth. Dattatreya, the son of the famous seer-scientists Atri and Anusuya (the latter was regarded as the ideal of womanhood) is respected as foremost in the line of great teachers.

The truth communicated by Dattatreya to Parasurama is contained in the *Tripura Rahasya*, or the 'Secret of Tripura'. The word 'Tripura', literally meaning 'three cities', indicates the three states of consciousness: waking state, dream and deep sleep. An undercurrent of consciousness runs continuously in all the three states and remains unaffected by changes from one to another. Tripura, as abstract intelligence, regulates them all and is regarded as the protector of these 'three cities'. Seen as the foundation of creation, the procreative capacity as personified in the mother, Tripura is referred to as 'she', the feminine term. The book begins with a salutation to transcendental consciousness, the primal and blissful cause. This transcendental consciousness shines like a mirror in which we see the reflections of our universe in all its diversity.

Dialogue and Discourse: When Parasurama was returning after his campaigns of revenge, dejected by his defeat at the hands of Rama, he met Samavarta, an *Avadhoota*.² Parasurama felt refreshed simply by being in his presence and asked him how he had achieved the state in which every inch of his body was filled with exhilaration. Samavarta's answer was unequivocal and expressed the essence of life; but his words were not very clear to Parasurama who was feeling humbled by his defeat. He earnestly beseeched Samavarta to explain the meaning behind his words, and in response Samavarta directed Parasurama to Dattatreya.

As we proceed with the narrative, we come across

numerous discourses, punctuated by dialogues between one person and another, such as between a teacher and his disciple and between husband and wife. These dialogues all convey some aspect of reality, often veiled behind a confusion or illusion.

For example, Dattatreya explained to the young man that: "Misery is not the absence of happiness but limited happiness for, as happiness recedes, misery pours in." Elucidating Samavarta's words, Dattatreya told Parasurama that he was fortunate in transcending the distracted state of unhappiness. With the blessings of Tripura, he could now march towards the state of happiness and bliss.

Investigation, Deliberation and Judgement: The great teacher pointed out that investigation is the first and most important step in analysing the causes of misery. "Investigation is the root cause of all, and the first step towards the supreme reward of indescribable bliss. How can anyone gain a sense of security without proper investigation?

"Want of judgement is certain doom, yet many remain in its clutches. Success attends proper investigation, which must be continued until the goal is accomplished without any doubt whatsoever. Lack of well-thought-out, deliberate and thorough investigation is an ever-present weakness, while careful investigation is a distinct source of strength. Those who suffer from lack of investigation experience frequent setbacks and misery. Those who are endowed with thorough investigation followed by persistent endeavour will always be happy. A persistent man shines above others. Investigation is the seed capable of sprouting and flourishing into the gigantic tree of happiness.

"Rama, although the most intelligent of men, came to disaster for want of sound judgement when attempting to capture the golden deer. Later, when he acted with due

persistence and insight, he crossed the ocean to the island of the *Rakshasas* and conquered it.³

“On the other hand, great and valiant are the heroes whom judgement befriends. Common people become foolishly engrossed with their senses and are perplexed at every turn. But if they were to think before acting, they would be free from all misery. So investigation is the sun which chases away the dense darkness of indolence.”

Importance of Vichara: “When the supreme Devi is pleased with the dedication of the devotee, She turns into Vichara in him and shines as the blazing sun in the expanse of his heart. Vichara blends discrimination (between right and wrong), investigation (into facts and truth), deliberation (about causes and consequences) and judgement (based on all these factors). It is the only way to attain the highest good. Anxiety persists until the mind turns towards Vichara from the overpowering affliction of ignorance. This is akin to the anxiety one feels for a delirious patient until one sees signs of recovery.

“If Vichara once takes root in the individual, the highest good has, for all practical purposes, been reached in this life. As long as Vichara is absent from a human being, however, the tree of life remains barren and useless. The only useful fruit of life is Vichara.

“A man without discrimination is like a frog in a well, who knows nothing of either good or bad and dies in his ignorance in the well itself. Confusing dispassion (*Vairagya*) with unhappiness and the pleasures of the world with happiness, a man continues to suffer under the influence of the ignorance which holds him in a powerful grip. Even though afflicted by misery, he does not cease further indulgence in causes that lead to misery. Whereas you have transcended misery by becoming discriminating,” Dattatreya told Parasurama.

Association with the Wise: Parasurama was delighted at the words of his teacher, and continued to ask questions with humility and respect. He wanted to know why he had not previously been attracted to listening to those whose words would induce discrimination. Responding to his sincere query, Dattatreya pointed out: "Association with the wise is absolutely essential for obliterating all unhappiness and leads to the highest good. Has anyone ever achieved greatness without contact with wise people? The company one keeps determines one's future. A man undoubtedly reaps the fruits of his company."

To illustrate this point further, Dattatreya related to Parasurama the story of Prince Hemchuda and his wife Hemlekha, daughter of a saint. The loving couple had enjoyed a very happy honeymoon, but the infatuated prince noticed that Hemlekha did not respond to his overtures with equal intensity and passion. He felt that she was unresponsive and questioned her about it. "Even when I am close to you, your mind seems to be elsewhere," he said to his beloved wife.

Defining Happiness and Misery: "O Prince," Hemlekha replied, "it is not that I do not love you, only that I am trying to discover what is the greatest joy in life which will never lose its flavour." She explained to her husband what was going on in her mind. "According to you, happiness and misery are the results of what is pleasing or otherwise. But is this a sound view? The same object gives pleasure or pain according to circumstances. Take fire, for example. Its effects vary according to the seasons, location and its intensity. It is agreeable in cold climates and disagreeable in hot ones. Pleasure and pain related to fire are, therefore, a function of the seasons, and similarly of latitudes and altitudes. Fire is good for people of certain constitutions, but not for others. Thus, it seems that pleasure and pain depend on circumstances."

“The same reasoning applies to cold, wealth, sons, wife, kingdom and so on. Take the example of your father, the King, who is worried every day even though his wife, children and wealth surround him. Why do others not grieve as much as he does? What has happened to his happiness? He is certainly looking for happiness — aren’t his resources directed to that end? No one seems to possess everything that is sufficient for happiness, so the question arises in my mind: can someone not be happy, even with limited means?”

Hemlekha proceeded to give him the answer to these questions: “That which is tinged with misery cannot be happiness. Misery is of two kinds — external and internal. The former pertains to the body and is caused by the nerves etc. The latter pertains to the mind and is caused by desire. Mental distraction is worse than physical pain and the whole world is a victim to it. Desire is the seed of the tree of misery and never fails to bear fruit.

“Any respite gained by the fulfilment of one desire before another takes its place is not happiness because the seeds of pain are still latent. If one fulfilled desire could cause true happiness, who would not be happy in this world?

“A man is happy when embraced by his beloved; he is unhappy in the same act under other circumstances. Or [is] the enjoyment of man enhanced by his sense of beauty? Beauty is only a mental concept, as is evident from the similar feeling enjoyed by lovers in dreams. The reason for the infatuation is the often-repeated mental picture of beauty. Neither children nor Self-controlled Yogis are excited in the same way (because their minds do not dwell on such things). The idea of beauty lies in one’s own feelings and desires innate in the mind. If the desire that beauty evokes in you is natural to the object of love, why don’t children respond to it in much the same manner as they do to sweetness in foods?”

Hemchuda was amazed by this strange discourse. He pondered over all that Hemlekha had said, and discussed it with her again and again in an attempt to understand the ultimate truth. Finally he came to realise that pure consciousness is inherent in the Self.

The city of Vishala, where they lived, became famous. Even the parrots in their cages used to repeat: "You should meditate, O Man, on the Self, the absolute consciousness devoid of objects! There is nothing else to know besides pure consciousness; it is like a Self-luminous mirror reflecting objects. That same consciousness is also object and subject and everything — the mobile and the immobile, the animate and the inanimate. Everything else shines in its reflected light; it shines of itself. Therefore, O Man, throw off delusion! Think of that consciousness which illuminates and pervades everything. Be of clear vision."

However, force of habit prevailed with Hemchuda. He was unable to enjoy himself or to abruptly cease certain activities which had always given him pleasure before. Being too proud to confess his weakness to his beloved, he became sad and pensive. Hemlekha was aware of the change in him and asked him why he was not as cheerful as before. The prince replied: "What you said on the last occasion has barred all means of happiness for me, so that I can now find nothing to make me happy."

"Just as a man under orders to be executed cannot relish the luxuries provided for him by the State, so also do I not relish anything. Just as a man is forced by royal command to do something in spite of himself, so also must I engage in old ways by force of habit. Now I ask you, dear, tell me how I can gain happiness."

Being thus approached, Hemlekha thought to herself: "This dispassion is certainly due to my words. There is the

seed of highest good in that field where such symptoms appear. Had my well-thought-out words not produced even the slightest turn in this direction, there would be no hope of emancipating him. This state of dispassion only arises in one whose continued devotion inspires great pleasure in Tripura, inherent in the heart as the Self.'

Keeping her thoughts to herself, she told her husband a story in a bid to remove his depression. The story described the misery and suffering of a good friend of hers who became associated with wicked people. Finally the friend managed to escape from their clutches and went on to attain happiness. The characters and their experiences communicated a deep message, but the prince dismissed the story as of no great significance.

The Mind as a Restless Monkey: Explaining the message of the story, Hemlekha said: "Mistrust in a well-wisher's words is the surest path to ruin. Faith is like a fond mother who can never fail to save her trusting son from dangerous situations. Confidence holds the world and nourishes all. How can a baby thrive if it has no confidence in its mother?

"Beware of arid polemics parading as logic. What is known as the mind is, after all, like a restless monkey. So the ordinary person is always afflicted with troubles. Everybody knows that a restless mind is the channel of endless troubles, whereas one whose mind is free of restlessness is happy and sleeps soundly. Therefore, keep your mind steady when you listen (to the wise). Listening to them with a distracted mind is as good as not hearing them at all. Their words serve no useful purpose if not heard and heeded — they become like a fruit-laden tree in a painting. People who turn away from dry logic and engage in purposeful discussion receive great benefit. Aimless discussions are fruitless; only earnest efforts are fruitful in the world.

“Discriminating zeal is what enables the farmer to plough the field in season and the assayer to assay the worth of gold, silver, precious stones, medicinal herbs and so forth. No practical work will be done if people spend all their lives in vain discussion alone. Therefore, one should discard aimless talk and begin immediately to accomplish the highest aim of life, as ascertained by appropriate and sincere discussion. In addition, one should not refrain from individual effort.”

The Importance of Earnest Effort: Hemlekha then explained to her husband the importance of sincere endeavour. “Those who strive earnestly need never be at a loss. Does sustained effort ever fail in its purpose? Think carefully, and tell me where, when, how and what profit was ever gained by any man who indulged only in dry polemics instead of taking action. The correct choice is made by right discussion and according to the experience of the wise.

“Knowing the Truth is like seeing through the juggler’s trick,” Hemlekha continued. “Men can learn to overcome the universal illusion only with the grace of Maheshwara, the Great Ishwara.⁴ Overcoming illusion endows a person with supreme knowledge. This enables him to cross ‘the ocean of the universe’; that is, he can travel and see beyond what is apparent and reach Reality, the underlying Truth. Pursue the primal cause of the universe as the starting point. You will soon succeed in your attempts to destroy illusion.

“Although the origin of creation is shrouded in mystery, let us investigate its cause from the visible effect, and be guided by the writings of the seer-scientists.”

Hemlekha told her husband: “Contentious statements to the contrary (to that which I am putting forward) have also been made, and some scholars and philosophers admit only sensory evidence. For example, a particular (philosophical) system declares that since the universe is

eternal, without beginning or end, it follows that the universe and its phenomena are Self-existent. This would mean that insentient matter is its own agent and keeper, which is absurd because action implies intelligence and no example can be cited to the contrary. Kingdoms which are unwisely governed are known to disintegrate. (But this universe continues to exist.)”

Creative Faculty: “The creative faculty in human beings belongs somewhere between the body and pure intelligence. The body is insentient and cannot act of its own accord; nor can the intellect do so without a tool. The mind functions separately from the gross body, in dreams; being intelligent, it creates an environment according to its latent desires. This clearly indicates that the body is only a tool for a purpose and its agent is intelligence. Instruments are necessary for human agents because their capacities are limited and they are not Self-contained, whereas Parmatma⁵ (creates the whole universe without any external aid and has no body. If he had a body, he would be reduced to a glorified human being, requiring innumerable accessories for work and influenced by the seasons and different environments. Rather, he is pure intelligence; his consciousness is absolute and transcendental. This consciousness-intelligence in purity is the Absolute Being, the One Queen *Parmeshwari* (‘Transcendental Supraphysical Energy’), who pervades the three states and hence is called Tripura. Although she is an undivided whole, the universe manifests in all its variety in her, being reflected, as it were, in a self-luminous mirror. The reflection cannot be separate from the mirror and is therefore one with it.”

(Readers will have noted the transition from Parmatma, for whom the pronoun ‘he’ has been used, to Parmeshwari who is ‘she’. In Sanatana Dharma, male and female principles are not contradictory nor in conflict with each other. They are complementary

and intertwined, being two facets of the same fundamental Tattwa. The concept of Ardhanareeshwara — an androgynous union of Shiva and his consort in one body, half-male and half-female — is symbolic of the view that the two supraphysical energies are not only intertwined but are, in fact, two manifestations of the same fundamental principle.

The names of all 'incarnations' in the Indian tradition are always recalled as a union of male and female: Sita (female) goes with Rama (male), and Radha (female) goes with Krishna (male). Indian Darshana, as we have noted in other chapters, focuses on Prakriti (female) and Purusha (male) acting in unison, leading to the creation of the universe.

The female principle is celebrated as the real power without which Shiva, the 'male god', becomes a corpse. She is the power (Shakti) of Shiva, and without her Shiva is literally powerless. Shakti — the female principle — is the creator as well as creation itself. The use of 'he' or 'she' for this fundamental principle is merely the application of the rules of grammar to the specific nomenclature used in a particular context to describe or identify that fundamental principle. Depending on the nomenclature, the same principle is described as masculine, feminine or neuter: he, she or it.)

Hemlekha said to her husband: "(You should) investigate the nature of the Self with an intellect made transparently clear. The Self is not an object to be perceived or described. The Self has no describable specifications and so no teacher can teach it. However, you can realise the Self within you, for it abides in the unblemished intellect. It pervades everything but it is not cognisable by the mind or senses. It is illumined by external agencies and it illuminates all of them, everywhere and always. It surpasses demonstration or discussion.

"How, where, when or by whom has it been specifically described, even incompletely? What you ask of me, dear,

amounts to asking me to show your eyes to you.⁶ Even the best teachers cannot bring your eyes to your sight. A teacher can at best guide you towards the Self, nothing more.”

Explaining the means to Self-realisation, she added: “As long as you remain contaminated with notions of ‘me’ or ‘mine’ (eg. ‘my home’, ‘my body’, ‘my mind’, ‘my intellect’), the Self will not be found, for it lies beyond cognition and cannot be realised as ‘my Self’. Retire into solitude, analyse and investigate those things that are cognised as ‘mine’; discard them all and, transcending them, look for the real Self. For instance, you know me as your wife and not as your self. I am only related to you and not part of you, much less part of your very being. Analyse everything in this way and discard it. What remains, transcending it all, beyond conception, appropriation or relinquishment — know that to be the Self. That knowledge is final emancipation.”

When she had finished speaking, Hemchuda withdrew to a room in his palace where he sat on a cushion and began to contemplate thus: “Truly, all these people are suffering from delusion. Not one knows even the boundaries of the Self. But everyone is actively involved in matters related to their Self. While engaged in various activities (in pursuit of knowledge, wealth, power and comforts), they never question what exactly the Self may be. Why is there all this confusion? When the Self is not known, all is in vain and as if in a dream. So I shall now investigate this matter.

“My home, wealth, kingdom, treasure, women, cattle — none of these is ‘I’; they are only ‘mine’. I certainly take the body for the Self, but it is simply a tool of mine. I am indeed the king’s son, with a good physique and a fair complexion. Others, too, hold this same notion that their body is their Self.”

Reflecting thus, he contemplated the body. He could not identify the body as the Self, and so he began to transcend

it. "This body is 'mine', not 'me'. It is made of blood and bones and is changing each moment. How can this be the changeless, continuous me? It is as separate from me as the waking body is from the dream. 'I' cannot be the body, nor can the Prana, the vital energy, be the Self. The mind and intellect are clearly my tools, so they cannot be 'I'. 'I' must be something apart from all these, beginning with the body and ending with the intellect.

"I am always aware, but I do not realise that pure state of awareness. The reason for this inability is not clear to me. Objects are known through the senses, not otherwise. The mind recognises life by means of the intellect. But who makes intellect evident? How do I realise that there is intellect?"

Contemplating in this way, the prince made a sincere effort to bring thought to an end. Abruptly blankness descended, and he decided that it was the Self. As he restrained the restlessness of his mind, he saw in an instant a blazing light. He descended into a reverie and it appeared he had snapped ties with his surroundings and lost consciousness of the world around him. On regaining 'consciousness', he realised that there was no stability in the experience he just had. He tried again, and fell asleep for a long time, enjoying wonderful dreams. But when he awoke, he was furious with himself for having been overpowered by sleep. He thought that the darkness and light he had seen must also be a dream.

He repressed his thoughts again and gained a placid state of mind for a while, thinking it to be a state of bliss. Shortly thereafter, he returned to his original state of mind and began to reflect whether he had been dreaming or experiencing hallucinations. He decided to ask Hemlekha, so he called her in, described his experiences and asked her various questions that were troubling his mind. "I forcibly suppressed my thoughts and remained calm. Darkness

descended, then light appeared, sleep intervened and finally a unique bliss overpowered me for a little while. Is this the Self, or something different?"

Hemlekha replied: "What you did, in suppressing your thoughts, with the mind turned inward, is a good beginning. However, it does not 'produce' Self-realisation, for the Self is always realised and so Self can never be gained. We can only gain something which we do not already possess."

She gave him some examples: objects are obscured by darkness, but they become evident when the darkness is removed by the light of a lamp. A confused person misplaces his purse, then remembers where he had put it and is able to locate it when his mind becomes unruffled. When his mind steadies itself it rediscovers the purse, but it does not produce it. In the same way, the Self is always there; it is not recognised, however, because we are not conversant with it.

She explained to him: "Blank darkness descended after you controlled your thoughts. In the short interval before its appearance, and after the control of the mind, there is a state which is free both from the effort to control the mind and from the perception of darkness. That state is one of perfect and transcendental happiness.

"Even a scholar well grounded in the theory and complexity of the philosophy of the Self cannot realise the Self because it is not realisable. It is already realised. Recognition of its existence is not attained by going far away in search of it, but rather by staying still, not by thought (intellect) but by cessation of thought. Any effort made to attain realisation is like the attempt to stamp on the shadow cast by your head with your own foot. Such effort will only make the realisation recede.

"Although people understand space, they are not aware of it because they are preoccupied with the objects in space.

They understand the universe in space, but have no comprehension of space itself. This is also true of their comprehension of the Self."

Knowledge and Objects of Knowledge: Sharing the path of Self-realisation in this way with her husband, Hemlekha explained: "The world consists of knowledge and the objects known. The objects are non-Self and are perceived by the senses. Knowledge is self-evident, for there is no world in the absence of knowledge. Knowledge is the direct proof of the existence of objects, which are, therefore, dependent upon knowledge. Knowledge itself is dependent upon the knower for its existence. The knower does not need to learn how to know his own existence; therefore, he is the only reality behind knowledge and objects. That which is self-evident without the necessity of being proven alone is real. One who denies knowledge has no ground to stand on, and so no discussion is possible.

"Now that the subject of knowledge is settled, the question arises regarding the existence of objects in the absence of their knowledge. Objects and their knowledge are only reflections in the eternal, self-luminous, supreme consciousness, which is the same as the knower and which alone is real. We need not doubt that the reflection of all objects should occur simultaneously without reference to time and place (contrary to our experience), because time and space are themselves knowable concepts and are equally reflections.

"Therefore, Prince, realise with a tranquil mind your own true nature, which is the one pure, undivided consciousness underlying the restless mind. It is composed of the whole universe in all its diversity. Realise with a still mind the state between sleep and wakefulness, the interval between the recognition of one object after another, or the gap between

the two perceptions. This is the real Self, recognising which one is no longer deluded. Most people are unaware of this Truth and have become inheritors of sorrow.

“Form, taste, smell, touch, sound, sorrow, pleasure, the act of gaining or the object gained — all of these lose their relevance in that transcendence. They have no place in that state which is the support of all there is. It is the ‘being-ness’ in everything, without itself being dependent upon anything.

“Don’t let your mind turn outwards. Instead, turn it inwards, control it just a little, and watch for the Self, always remembering that the investigator is himself the essence of being and the Self of Self.”

Hemchuda did accordingly and, having gained that state, remained peaceful for a long time. Unaware of anything apart from the Self, he became *Jeevanmukta*, that is to say, he gained emancipation in his lifetime.

Dattatreya narrated this story to Parasurama and concluded: “You see, Parasurama, the primary cause of emancipation is association with the wise. Therefore, follow this advice first and foremost.”

Parasurama, however, still had his doubts. He told his teacher that his wonderful teaching appeared to be contrary to the daily experience of people. “How can the magnificent objective universe be nothing other than tenuous consciousness, which is not seen but only inferred? Pure intelligence devoid of known objects cannot be imagined and, therefore, cannot be postulated. So the whole theme based on it is not clear to me. Please elucidate the subject (further) so that I may understand it.”

In his wisdom, Dattatreya proceeded to explain to Parasurama the truth of the objective world: “All that is seen has an origin, and so there must be an antecedent cause for it. What is origin except a thing which appears anew? The

world is changing every moment and its appearance is new every moment; so it is born with every moment. Some contest the point, saying that this may be true of a specific object or objects but not of the world itself, which is the aggregate of all that is seen. Some say that external phenomena are only momentary projections of the recollection of the continuous link, namely the subject and the worldly actions based on it; whereas the intellect — which collates time, space and phenomena — is infinite and eternal. Others say that the universe is the aggregate of matter, both mobile and immobile. Some maintain that the universe is made up of the five elements of earth, air, fire, water and space, which are permanent, and of objects like a pot, a piece of cloth etc., which are transient.

“But everyone agrees that the universe has an origin. To say that it originated without a cause is untenable and over-stretches the imagination. There would be no order in creation if a thing can appear without a cause. In that case, the principle of relation between cause and effect would break down. The interdependence of cause and effect is ascertained by their logical sequence and proved by its role in practical life. How, then, can a universe be without a cause?

“Cause should be inferred where it is not obvious and traced from the effect. Each occurrence must have its cause; that is the rule. Even if the cause is not obvious, it must be inferred; otherwise the world of activities would be futile, which is absurd. Every event is a product of a certain condition or conditions, and this fact enables people to engage in purposeful work. We observe this constantly in the practical world. Therefore, the theory of accidental creation is not admissible.”

Dattatreya continued: “This consciousness is the only existence, covering the whole universe and perfect

throughout. Just as there cannot be waves separate from the ocean nor light without the presence of the sun (or some other source) so also can the universe not be conceived without consciousness.

“Creation is a mental construct of Shiva. Being pure consciousness, Shiva has no body; awareness has no form. Sri Tripura is Shakti, the inexhaustible energy which manifests as consciousness. She is witness to all that goes on in creation. That (supraphysical energy) is all-pervasive and indivisible.

“Time and space are the factors of division in the world. Space refers to the location of objects and time to the sequence of events. Time and space are themselves projected from consciousness, so how could they divide their own basis?

“The existence of objects is only by virtue of the illumination they receive. This illumination is nothing but consciousness, which is self-luminous. Objects, on the other hand, are not self-luminous, for their existence depends upon the perception of them by conscious beings. Just as reflections have no substance outside of the mirror, so do the things of the world lack substance outside of the cognising factor, which is intelligence.

“The detail and tangibility of things are no arguments for their possession of a more solid substance than mere images. The cognition of things implies their image on our intelligence and, therefore, creation is an image. It is not self-luminous, but becomes a fact upon our perception of it. Thus, I say that the universe is nothing but an image on our consciousness. Consciousness shines notwithstanding the formation of images on it. Although it is impalpable, it is steady and does not fluctuate. Just as the images in a mirror are not separate from the mirror itself, so are the creations of consciousness not separate from consciousness itself.

“Objects are necessary for producing images in a

mirror, but they are not necessary for consciousness, because it is self-contained. The world is nothing but an image drawn on the screen of consciousness. It differs from a mental picture in the length of its duration, which is a result of the strength of will producing the phenomenon.

“Truth can never change its nature, whereas untruth is always changing. See how changeable the nature of the world is!

“Distinguish between the changeless Truth and the changeable untruth, and scrutinise the world comprised of these two factors. Phenomena are constantly changing while subjective consciousness is changeless. Absolute consciousness shines as ‘being-ness’ with her own luminosity.”

Throughout the rest of the *Tripura Rahasya* we move from one revealing narrative to another, from one meaningful discourse to the next. There are doubts and clarifications, questions and answers, and illustrations and examples to help the seeker-student reach supreme intelligence or absolute consciousness. Philosophical propositions are cited, scrutinised and refuted. Slowly but surely the seeker is led towards the truth. What we find in this work is not mythology, magic or superstition. It is the journey within to gain the ultimate truth — that the universe is none other than the Self. An earnest seeker is helped to see how the true Self has been ignored and how the body has become identified with the Self. The following are examples of such wisdom contained in the work:

“In fact, you are not the body. You own the body and call it your own, just as you do a garment you possess.”

“You speak of ‘my’ body, ‘my’ eyes, ‘my’ life, ‘my’ mind and so on. I ask you now to tell me what precisely you are.”

As we proceed we learn that: “As long as the ignorance of the Self lasts, so long will there be misery.”

Those who are ignorant of the Self are terrified in the same way as dreamers are foolishly alarmed by their own dreams, or fools are deluded by the serpents created in a magic performance. Once the dreamer wakes from the fearful dream, or the person attending the magic performance is informed of the unreal nature of the magic creations, they no longer fear them but ridicule others who do so. Similarly, one who is aware of the Self not only does not grieve, but also takes with equanimity another's grief (and thus helps him or her to deal with it). The teacher shows us how to dismantle this seemingly impregnable fortress of illusion and conquer our misery through the realisation of the Self. We are encouraged to be discriminating on the path to this ultimate discovery.

The Universe as a Dream: In a fascinating dialogue between Prince Mahasena and the sage Gana's son, the former questioned the relevance of comparing the universe to a dream. "A dream, or a magic show, is subsequently realised to be illusory, whereas this concrete universe is always real and purposeful. How can it be compared to the evanescent dream?"

The sage's son answered: "Your opinion that the comparison is meaningless is a double delusion, like a dream in a dream. (*The first delusion is the idea of separateness of the universe from oneself; and the second is the idea that dream objects are illusory in contrast to those objects we see while awake. This is compared to the illusion that a dreamer mistakes the dream-rope for a dream-serpent. The dream is itself an illusion and the mistake an illusion within the illusion.*)

"Consider the dream as a dreamer would, and tell me whether the trees do not afford shade to pedestrians and bear fruit for others to eat. Is the dream realised to be untrue and ephemeral within the dream itself? Do you mean to say that the dream is rendered false after waking from it?

Is not the waking world similarly rendered unreal in your dream or deep sleep?

"Do you contend that the waking state is not illusory because there is continuity in it after you wake up? Is there no continuity in your dreams from day to day? If you say that it is not evident, tell me whether the continuity in the wakeful world is not broken up every moment of your life.

"Do you suggest that the hills, oceans and the earth itself are really permanent phenomena in spite of the fact that their appearance is constantly changing? Is not the dream world also similarly continuous with its earth, mountains, rivers, friends and relatives?

"Do you still doubt its abiding nature? Then extend the same reasoning to the nature of the wakeful world and know it to be equally evanescent. Ever-changing objects like the body, trees, rivers and islands are easily found to be transitory. Even mountains are not immutable, for their contours change owing to erosion by waterfalls and mountain torrents, the ravages of men, boars and other wild animals and insects, thunder, lightning, storms and so on. You will observe similar changes in the oceans and on the earth's surface. So you should investigate the matter closely.

"Dream and wakefulness resemble each other in their discontinuous harmony (like a chain made up of links). There is no unbroken continuity in any object, because every new appearance implies a later disappearance. But continuity cannot be denied in the fundamentals underlying the objects.

"Because a dream creation is obliterated and rendered false by present experience, what distinction will you draw between the fundamentals underlying the dream objects and the present objects?

"If you say that the dream is an illusion and its fundamentals are equally so, whereas the present creation is

not so readily obliterated and, therefore, its fundamentals must be true, I ask you: what is illusion? It is determined by its transitory nature, which is nothing but the appearance to, and disappearance from our senses.

“Is not everything obliterated in deep sleep? If you maintain that mutual negation is unreliable as evidence and so proves nothing, this amounts to saying that self-evident sight alone furnishes the best proof.

“The wakeful universe appears so real to us all only by force of habit. If the same were imagined to be vacuous, it would melt away into the void. One starts imagining something, then contemplates it, and by continuous or repeated association resolves that it is true unless contradicted. In that way, the world appears real in the manner one is used to it.

“Just as dream creations are pictures moving on the mind’s screen, so is this world — including yourself — the opposite of the nature of pure intelligence. It is nothing more than an image in a mirror.”

The teacher asked Mahasena to realise that the Self is the self-contained mirror projecting and manifesting this world. It is pure, unblemished consciousness. The whole universe is in the illumination, which shines in self-sufficiency everywhere and at all times. Such illumination is Her Transcendental Majesty Tripura, the Supreme, the Ultimate Principle. She holds everything as a mirror does its images. She is the illuminant in relation to the illumined. The object is sunk in illumination like the image of a city in a mirror. Just as the image is part of the clear, smooth, compact, single mirror, so is the universe part of the perfect, continuous and unified consciousness, namely the Self.

Similarly, as the mirror remains unaffected by the passage of different images and continues to reflect each as

clearly as the last, so does the single consciousness illuminate the waking and dream states. This can be verified by proper meditation.

Tripura Rahasya narrates an incident in the court of a wise and learned King Janaka, in which an arrogant dialectician challenged the scholars to a debate and humiliated them by the power of his false logic. He was, however, defeated in debate by Ashtavakra who became puffed with pride and behaved offensively before the assembled court. Just then a woman ascetic appeared in their midst and asked some very significant questions. Ashtavakra replied to these questions, but it became clear that he was speaking from second-hand knowledge gathered from books. As his knowledge was not based on Self-realisation, there were contradictions in his statements. Upon the subsequent request of the young Ashtavakra, she explained to him that: "Consciousness is absolute and transcends the three states (wakefulness, dream and sleep). It comprises the whole universe, making it manifest. Nothing can be apprehended without its light.

"Would anything be apparent to you if there was no consciousness? Even to say that nothing is apparent to you (as in sleep) requires the light of consciousness. Is not your awareness of your unawareness (in sleep) due to consciousness?

"Everybody fails in this investigation, however learned and proficient they may be, because their minds are not turned inwards but restlessly move outwards. As long as thoughts crop up, the turning inwards of the mind has not been accomplished. And as long as the mind is not turned inwards, the Self cannot be realised."

Defining Intelligence: "Intelligence is that by which objects are known; it cannot be what it is if it becomes the object of knowledge. What is intelligible must always be different from intelligence itself, otherwise it could not be

made known by it. Intelligence in the abstract cannot admit of parts, which is the characteristic of objects. Therefore, objects take on shapes.

“Just as a mirror takes on the hues of the images, abstract intelligence assumes the different shapes of objects by virtue of holding them within itself.

“You are not the body, nor the senses, nor the mind, because they are all transient. Although consciousness is unknowable, it is still realisable by pure mind. It is sufficient to eliminate other perceptions (namely, thoughts) from the mind for the Self to be realised. The difference between the Self (abstract intelligence) and the (individualistic) intellect lies only in the continuity of the Self. Abstract intelligence is the background upon which phenomena are displayed. It manifests itself in all its purity in the absence of objects and phenomena. Its advent may appear to be something new when we notice it for the first time. It remains unrecognised because it is not distinguished from the phenomena displayed by it, but when these phenomena are expunged it readily becomes apparent.

“The existence of pure intelligence, free from objective knowledge, has been proven and can be felt on many occasions in ordinary life. However, it goes undetected because people are in the meshes of Maya⁷ and are not conversant with it. Alertness alone will reveal it.

“Objective knowledge is gained by the mind; the mind cannot be objectified. Nonetheless, it is clear that there must be mind even in the absence of objects. Such pure mind, entirely stripped of all objects (or thoughts) is pure intelligence. Awareness is its nature and, therefore, it exists in an unbroken state of realisation.

“Abstract intelligence contracts when subjected to modification and becomes limited. At all other times it is

infinite and unbroken. (*For example, it is modified and limited to an individual, an object, a group of objects or the universe when it is exposed to these limiting phenomena. When it is divested of these modifying factors, it remains pure and unlimited.*) Mind divested of thoughts becomes pure and is identical with the Self, which alone destroys ignorance. Consciousness is non-dual but shines as if diversified, like the clean surface of a mirror reflecting variegated colours.

“Note how the mind, which is unmodified in sleep and remains single and blank, is later modified by dreams and manifests as the dream world. Similarly, the one consciousness — Sri Tripura — flashes forth as the various phenomena of the universe. The cognising principle and the cognised objects are seen in dreams also. Even a blind man perceives objects. How does he do so, unless by mental perception? Can anything be known at any time or place in the absence of the light of the mind? Similarly, nothing is cognisable if it lies beyond the cognising principle. For the same reason, I say that the mind cannot lie separately from intelligence in the abstract. Just as consciousness, cognition and the cognised are identified with the mind in dreams, so also are the seer, the process of seeing and the seen phenomena identical with the mind in the wakeful state.

“An axe may be created in a dream to fell a tree — the purpose for which an axe was first created — and in the same way the mind is said to be the faculty for giving perception.

“Pure intelligence is the unblemished mind, and the other faculties are mere fabrications which enable interactions to continue. These go on because the Absolute is self-sufficient and manifests as both subject and object.

“Absolute consciousness and space resemble each other in being perfect, infinite, subtle, pure, unbounded, formless,

immanent and yet undefiled within and without. Space differs from consciousness, however, in being insentient. In fact, the conscious Self is space. Space is Self, and Self is space. It is the ignorant who see the Self as space alone, owing to their delusion, just as owls find darkness in dazzling sunlight. The wise, however, find in space the Self, the abstract intelligence.

“Since consciousness is absolute and all-pervading like space, it cannot leave through the senses; but its light extends outwards via the senses to cognise certain phenomena occupying space. This cognition amounts to lifting the veil of darkness to a degree, which is said to be the function of the mind.

“Rays of light are imperceptible in the atmosphere, but when they impinge on matter the objects become visible by virtue of the reflection of the light rays on their surface. Similarly, consciousness appears to disclose the presence of objects in space by unveiling them from the ignorance surrounding them. Mind is none other than consciousness; the difference between them lies in the fact that the mind is restless whereas the Self is a completely peaceful state of consciousness. Realisation of the Self subdues the restless mind, which is the dynamic aspect of consciousness. The mind will shine as the Self, if it is cleared of those thoughts now crowding it. At this point, all sense of duality ceases to exist. Mind is nothing but partial knowledge, in the sense that it tends to remain confined to a section or a part of the entirety or whole. When this tendency is eliminated, pure knowledge alone remains. This is the Self.

“The existence of Reality is self-evident and does not require other aids to reveal it, unlike its opposite, illusion.”

Tripura Rahasya tells the seeker that intellect consists of the cumulative effects of the predispositions acquired by actions. As long as predispositions continue to sway the

intellect, an individual feels compelled to engage in various actions until these effects are exhausted.

Thus we find that the concept of the goddess in Sanatana Dharma is profound. *Tripura Rahasya* helps the seeker to comprehend the incomprehensible abstract intelligence, or supraphysical energy, which underpins absolute consciousness. There is no mythology here, at least in the sense in which that word is commonly understood. The stories and dialogues comprising these and other narratives in *Tripura Rahasya* help the student to hone his or her tools of comprehension and to understand the subtle and complex forces, principles and phenomena of our universe.

The terminology used in these narratives to communicate a subtle idea has been confused or distorted by the 'predispositions' of the interpreters, commentators and translators. For example, when the seer-scientist states that "He who has entirely surrendered himself to the Goddess is sure to gain wisdom readily," this is advice to the seeker to follow earnestly the path of discovering, discerning and experiencing supreme intelligence. In the process, (s)he surrenders prejudices, predispositions and perversions to this supreme intelligence, and illumination inevitably follows.

As we have seen in this and other chapters, such surrender is a conscious accomplishment achieved by pursuing a well-defined course. It is neither superstition nor hallucination, although it is mystic in the sense that it involves transcending the habitual and conventional tools of exploration, namely the mind, body and intellect. However, it does involve harnessing the potential of these very tools in order to go beyond them. This method does not require external aids to reinforce its efficiency, and it has a distinctive purpose. Pure intelligence covers herself

with a veil of ignorance of her own. Her true nature is evident only after removing this veil by Viveka. This is extremely difficult for those whose minds are directed outwards; but it is easy, sure and expeditious for those who have learned how to look within.

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- 1 Ancient society was organised by the seer-scientists in four Varnas: Brahmana, Kshatriya, *Vaishya* and *Shoodra*. Brahmanas were devoted to the pursuit of knowledge; Kshatriyas to the pursuit of military power, running the state and protecting society from external aggression; Vaishyas were assigned the task of trade, commerce, agriculture and the management of all activities for the creation of wealth. Shoodras were assigned the responsibility of providing human power. These categories were, by and large, based on the supraphysical energies predominant in each individual. However, there are examples of a person born in one category pursuing the tasks generally assigned to another. There were Brahmanas who were commanders of armies, and Kshatriyas, Vaishyas or Shoodras who pursued knowledge and became scholars, sages and seers. The underlying principles of social engineering are explained in some detail in a subsequent volume by the author.
 - 2 Avadhootas are followers of a particular path of Self-realisation and liberation which enjoins overcoming eight shackles or traps including hatred, shame, fear, etc.
 - 3 The reference here is to the great epic *Ramayana* in which Ravana, the evil king of the island of Lanka, induced one of his lieutenants to assume the shape of a golden deer and entice Rama away from his hermitage, so that Ravana could forcibly kidnap Sita, Rama's wife. The ruse succeeded. A great battle ensued, in which Ravana and other evil-doers were killed and Sita was rescued.
 - 4 See our chapter "Jeeva, Ishwara and Parmeshwara".
 - 5 The meaning of Parmatma is explained in the chapter "Jeeva, Ishwara and Parmeshwara".
 - 6 This concept has been explained in great detail in the *Prashna Upanishad*, where the distinction and relationship between the seer and the scene are analysed.



*anadinidhanam vishnum
sarvaloka maheshwaram
lokadhyaksham stuvan nityam
sarva dukhatigo bhavet*

Vishnu is without a beginning and without an end,
The principal factor in all the states,
Regulator of the universe.
He who reflects on this eternal
factor transcends all sorrows.

Bhishma's reply to Yudhishtir in the *Mahabharata*,
ANUSHASHANA PARVA 149:6'



CHAPTER TWELVE

Vishnu and His One Thousand Names



IN THE PREVIOUS CHAPTER WE OBSERVED THE fundamental difference between invoking supraphysical energy and 'worshipping' a god, goddess or deity. It should be clear to our readers by now that invoking Tripura — who is pure intelligence — is not the same as worshipping a mythical goddess, ridiculed as a product of the undeveloped stage of human intelligence. The mere fact that *Tripura Rahasya* nudges the seeker towards comprehending the nature of intelligence in her pure form indicates a highly developed intellectual, cultural and spiritual environment in which such an idea was conceived and articulated.

In this chapter we meet Vishnu, who is a familiar figure to students of classical Indian literature. Sir Monier Monier-Williams describes Vishnu as "one of the principal Hindu deities in the later mythology regarded as 'the preserver' and with Brahma 'the creator' and Shiva 'the destroyer' constituting the well-known Trimurti or triad; although Vishnu comes second in the triad, he is identified with the supreme deity by his worshippers; in the Vedic period, however, he is not placed in the foremost ranks, although he is frequently invoked with other gods."²

This interpretation of Vishnu has two components: firstly, that Vishnu is a deity and secondly, that all narratives about him are mythology. Myths are narratives which consist of "widely-held, but false notions... traditional narratives usually involving supernatural or imaginary persons."³ As we explore the phenomenon of Vishnu, we

shall see how frivolous and misleading is the construction bestowed upon him by these Sanskritists and Indologists. This name 'Vishnu' is given to that which endeavours to deepen our comprehension of the forces and factors which create and sustain the cosmos. But in order to understand him we must sharpen our tools of comprehension and expand the horizons of our understanding, because only finite objects can readily be comprehended by the sense organs, mind and intellect.

In the physical universe, as we know, matter is observable but energy is not. When the bulb lights up, the fan turns, the refrigerator cools, the radio and television are switched on, we see the manifestations of electrical energy which cannot be seen in its pure form. Modern science tells us that energy is inexhaustible and, as we noted earlier, the physical world is floating in a vast ocean of supraphysical energy which is infinite, one and indivisible. Its manifestation is the world of plurality, with an endless variety of names and forms. Although technology has developed many sophisticated tools of observation, human beings are unable to 'see' energy. It is not surprising, therefore, that the subtler supraphysical energy cannot be 'seen' in the normal sense. Only its effects can be experienced.

The seeker of supraphysical energy and Truth attempts to transcend the limitations of his or her normal instruments of perception. Awareness is dependent on an object, as we have discussed previously. Yet the seer-scientists guide the seeker to reach the stage of objectless awareness, when (s)he is able to experience and 'see' the reality at the heart of this universe. The seer-scientists have provided indicators to this goal, which are often described as 'songs to the glory of the Lord'. These indicators are categorised as 'religious beliefs', 'sacred scriptures',

‘devotional songs’ or ‘various forms of worship of God’. In the tradition of the *Vedas*, these indicators constitute an encounter with Reality, an experience of the supraphysical energies which underpin the physical universe. If one were to speak in the language of spirituality, they enable us to establish contact with infinity. The inability of most scholars to understand what these indicators convey has often led them to dismiss them as myths.

In the great classical epic, the *Mahabharata*, there is a dialogue between the Pandava prince Yudhisthir and Bhishma, the grand old man of the Kuru dynasty, respected for his wisdom and experience. The prince asks Bhishma a set of questions: who is one and unique in this universe? Who is the culmination of all, in which everyone takes ultimate shelter? Of whose glory should a human being sing, and to whom pay respects for well-being and peace? Of all the Dharmas, which is the most important? By performing *Japa*,⁺ how is a sentient being released from the bondage of being born in this world?

In reply, Bhishma narrates the 1000 names of Vishnu to Yudhisthir. Some of these names are masculine, some feminine and some neuter. Each opens up a vista of ideas and inspires us to visualise a supraphysical factor which cannot easily be grasped by the tools of our understanding in their given state of development. Vishnu is the principle of consciousness which illuminates all experiences. Since he is the very substratum of all qualities, no name or term, in any language or form of expression, can identify him. Yet he has many manifestations and can, therefore, have an infinite number of names relating to these manifestations. A definition should directly describe the thing defined. Here we find 1000 indirect and finite definitions for that which is infinite. Since each is an indicative definition of the unknown

in terms of the known, it has the potential to elevate us to the realms of profound personal experience when we have lifted our minds towards it through contemplation.

It would not be practical to explore all the names of Vishnu in this work, so we shall turn our attention to just a few. As the significance of the nuances and meaning penetrates our awareness, our comprehension expands.

As we noted earlier, Sanskrit words grow from a root and can be dissolved back into their root when the prefixes and suffixes, which inject meaning into them, are removed. The root *Vis* means 'to enter'. The term 'Vishnu' dissolves into *Vēveshti Vyaapnoti iti Vishnuh* — that which pervades everywhere is Vishnu; that which has the nature of pervasiveness is Vishnu; he pervades all and is himself pervaded by nothing. The entire world of things and beings is pervaded by him, and he is not limited by space (*Desha*), time (*Kala*) or substance (*Vāstu*). Another name for him is *Vāshatkara*. *Vashatkara* indicates *Yajnya*,⁵ a meaning endorsed by the *Upānishads*. One Mantra states: *Yajnyo vai Vishnuh* — *Yajnya* itself is Vishnu.

Another name for Vishnu is *Bhaavah* — one who 'transforms himself into' (*Bhavati iti Bhaavah*) the movable and the immovable beings and things in the world. In his pure state he is unmanifest, but he spontaneously begins to manifest as discernible entities, both sentient and inanimate. He is the pure existence within all sentient organisms and insentient objects in the universe. He is the very 'being-ness' in all living beings. Life is infinite and dances through any given vehicle. All space is one and the same; so, too, does the one Reality dance as different *Atmas*.

Another of Vishnu's names is *Paramatma* (*Param* + *Atma*) — the Supreme *Atma* — meaning that which transcends all limitations of matter. In short, he is transcendental Reality.

He is also called *Purusha*, one who dwells in the fort-city.⁶ Metaphorically, the seer-scientists conceive of our body as a fortress with nine gateways,⁷ and declare that Vishnu rules inside it like a king. This term can also be dissolved in two other ways, providing further indications of the nature of the Self. Thus, *Purusha* also points to 'that which was before all creatures'⁸ and to 'one who completes and fulfils existence everywhere', meaning one without whom existence is impossible.⁹

Sthaanuh is another name for Vishnu. This term is generally used for the pillars which are often constructed on international boundaries delineating the borders of a country. They are permanent, immovable and fixed, and thus Vishnu is *Sthaanuh*, firm and unmoving, the Truth which does not fluctuate. He is permanently established in his own realm. The *Bhagavad Geeta* articulates the same idea in remarkably similar words: "Eternal, all-pervading, the pillar, motionless (is) this ancient one."¹⁰

A few other names of Vishnu are given below, with a brief explanation for each:

*Sambhava*h — one who assumes various forms of the world by his own free will. In fact, he alone is the source of all that is created.

He is called *Prabhava*h because he is the very womb of all the five great elements, from which the concepts of time and space have sprung.

Svayambhu — he who manifests himself. One who manifests himself from himself is considered self-made. Everything born or produced must have a cause and Vishnu is the cause from which all effects arise. He himself has no cause.

*Anaadi-nidana*h — one who has neither birth (*Aadi*) nor death (*Nidhanam*), neither a beginning nor an end; one who

is changeless. (Any change marks the death of an old condition and the birth of a newer condition.)

Dhaata — one who is the substratum for the world of names and forms and who supports all fields of experiences in everything.

Dhaatur-uttamah — in the science of life as explored by the seer-scientists, all corporal forms have arisen from and are composed of some basic elemental factors called *Dhaatus*. Of the endless varieties of *Dhaatus* available in existence, the subtlest (without which no existence is ever possible) is *Chit Dhaatu*, and this is Vishnu.

Shaashvatah — that which is permanent and remains changeless throughout all the three periods of time. In short, he is unconditioned by time. The supreme consciousness itself is the very illuminator of times, and the illuminator can never be affected by what it illumines. This changeless Reality is Vishnu.

Trikakubdhaama — one who is the very foundation or support (*Dhaama*) of the three quarters (*Kakubh*). The formulation here points to the three planes of consciousness, i.e. the waking (*Jaagrata*), dream (*Swapna*) and deep sleep (*Sushupti*) states. The fourth plane of consciousness (*Tureeya*) is the substratum for the other three.

As *Pranadah* he is one who gives Prana to everything. We are now familiar with the term Prana, which indicates all manifestations of life, or the source of life from which all activities in living organisms flow.

One of his names is *Prajaapatih*. We have encountered Prajapati in an earlier chapter. Vishnu is the master (*Pati*) of all creatures (*Prajaah*).

Bhoogarbhah signifies 'one who is the very womb of the world (*Bhooh*), from whom the world has emerged.

Saranam indicates that Vishnu is the refuge or shelter

for all. According to the Sanskrit lexicon (*Amarakosa*), the word *Saranam* means 'protector' and also 'home'. Since he is the ultimate goal, he is also the destination, the 'harbour'. One who realises him comes to live in him. He is the home to which Jeeva ultimately returns, and he is not only home to human beings but also to all that is created, movable and immovable. All retreat to rest and revive in him during the final submergence (*Pralaya*).

As *Visvaretaah* he is the seed from which the tree of life has sprung forth (*Retas* means 'seed'). He who is the very cause for the entire play of experience in the world of pluralistic objects (*Sarva-Prapancha-Kaaranabhootah*) is called *Visvaretaah*.

Ajah underlines that he is unborn; the eternal and infinite Vishnu is changeless, experiencing neither birth nor death. That which is born must necessarily die,¹¹ and so that which is unborn is deathless (*Amritah*).

Sarvaadhih — one who is the very beginning (*Aadi*) of all, who was in existence before everything else. Before effects arise, there is a cause. That which was before creation, and from which created beings emerged as an effect, is naturally the primary cause.

Satya — Truth or Reality. The term *Satyam* has a special connotation, as that which remains the same throughout all the three periods of time. That which appears to exist, but which never was nor shall ever be, is considered a delusion (*A-Satya*). He who remains the same before creation, during existence and even after dissolution is *Satya*.

Pundareekaaksha — one who can be fully experienced in the heart-space (*Pundareekam*). In the 'heart', the meditator can experience Reality more readily and clearly; thus, all-pervading Reality is described as 'dwelling in the heart-cave'.

Babhruh — one who rules over the worlds like a king. He

in whose presence all the instruments of perception, feeling and knowing continue their co-ordinated activity is Vishnu.

Visvayonih — one from which the entire world of experience (*Visvam*) has emerged; the womb (*Yoni*) from which thoughts and actions arise.

Shaasvata-sthaanuh — one who is both permanent (*Shaasvatah*) and irremovable (*Sthaanuh*). Remaining changeless, he is immortal, since change is the death of something existing and the birth of something new. As a single term, *Shaasvata-sthaanuh* has the meaning of permanent and changeless; thus, the permanently changeless factor in life is Vishnu.

Sarvagah — one who has gone everywhere, meaning one who pervades everything. Just as bangles, bracelets, necklaces and rings are all ornaments made of gold so that gold pervades them all, and just as the ocean pervades all the waves, so does the cause pervade its effect. The infinite consciousness itself is expressed as both the world of matter (*Kshetra*) and the knower of the limits or the scope (*Kshetrajna*).

Samgrahah shows him as one who holds the entire world of beings and things together in an indissoluble embrace. Just as the hub of a wheel holds the rim to itself by its endless spokes, so does Vishnu lend his vitality to every cell in the body and to every thought in the mind and intellect.

As *Ateendriyah* he is beyond the sense organs. This means that the sense organs cannot perceive him as their 'object' and also that he is separate from the sense organs and their functions. His mere presence lends them all their vitality. He is the very 'subject' in the perceiver and, therefore, the instruments of perception, emotion and thought cannot experience him.

Suparnah — *Parna* means 'wings', and *Suparnah* means 'that which has beautiful wings', ie. a bird. The seer-scientists

have sought to convey the enchantment of Reality in the formulation: "A pair of white-winged birds sit together affectionately on the same tree; one eats the fruits, the other does not eat and looks on." Jeeva and Parmatma are sitting on the same tree (the body): one (Jeeva) eats the fruits (of actions), while the other (Parmatma, the Self), merely looks on as the witness (*Sakshee*). Vishnu is this all-experiencing principle of consciousness. He is not the actor; he is the *Sakshee*, the witness of all actions.

Aavartanah — one who is the unseen dynamism behind the ever-whirling wheel of time upon which the endless drama of birth and death is played out. The repetition (*Aavartanam*) of these changes is the experience of the world. The one in whose presence alone the factors of matter begin their animated dance of decay is indicated here (*Aavartanah*) as the great power behind the continuity of change in the world of phenomena. The same idea is articulated in the *Bhagavad Geeta* when Bhagavan says: "O Arjuna, the Ishwar dwells in the heart of all, and spins the universe as though it is a complicated [piece of] machinery (*Yantra*)."¹²

Thus we find that the seer-scientist Veda Vyasa, compiler of the *Vedas* and author of the *Mahabharata*, is employing these various names to indicate that Vishnu is the ultimate source of all creation (*Udbhavah*) and the one vital force which ultimately sustains, supports and nourishes all creatures (*Vajasanaha*). It is, therefore, not surprising to find Veda Vyasa describing Vishnu as "beautiful" (*Sundaraha*) with "enchanting eyes" (*Sulochanaha*), and "invincible" (*Aparajitah*). He is also described as the "friend of the world" (*Lok bandhu*) as well as the "master of the world" (*Lok nathah*).

Each name for Vishnu inspires us to try to reach him. If we allow ourselves to reflect on the suggestions conveyed by these names, we gradually begin to experience that which lies

at the core of the phenomenon of plurality in our universe. And we begin to experience the common factors which inform the manifold names and forms comprising the universe. We begin to 'see' the changeless factor which continuously underpins the incessant change taking place before our eyes.

THE INSTALLATION OF SUPRAPHYSICAL ENERGY

(The Meaning of a 'Ritual')

Returning to the seer-scientists' analogy of the body as a fortress in which Vishnu resides as the king, we shall look at the installation of supraphysical energy within this fortress, i.e. the body of the seeker, which precedes the recitation of *Vishnu Sahasranama* (the 1000 names of Vishnu). Although this installation is generally categorised as a 'ritual', in fact it has a much deeper significance. The installation of Vishnu in the seeker's own physical form is a significant and beautiful practice. It is technically known as *Anga-Nyaasa* or 'Installation in the Limbs' and is a method by which the seeker invokes the supraphysical power with deliberate physical signs.

The body becomes the abode or temple of Supreme Reality. Its various limbs become the altars upon which the seeker invokes and installs various supraphysical energies with a heart full of love and faith. In order to reinforce the impact of the profound suggestions contained within this process, a corresponding physical sign accompanies the recitation of each Mantra. We shall take our reader through this process of reciting the Mantras and shall explain the corresponding physical signs.

A. Asya Vishnu-sahasranaama-strotrasya veda-vyaasa Rishih
For this incantation, "The One Thousand Names of Lord Vishnu",
Sri Veda Vyasa is the Rishi.

The Rishi is the Guru or teacher. The seeker is the student who uses this particular Mantra to request instruction in the path to follow to gain the Truth. The Rishi of a Mantra is installed at the crown of the head. The seated students first chant this Mantra in their mind and then touch the top of their head with the right-hand thumb, middle finger, and ring finger.

B. Amushtup Chandah

This intonation is in Anushtup¹³ meter.

The meter of the Mantra is mentioned because it indicates the discipline to be followed while chanting the Mantra. Anushtup is the name of the particular meter in which this 1000-name chant to Vishnu is sung. The chant is to emerge from the students' mouth and, therefore, the 'altar of the meter' can only be the mouth itself. The same fingers which touched the crown of the head previously now touch the lips while the students repeat the Mantra in their mind.

C. Sri Vishvaroopo Mahavishnur-Devatah

Great Vishnu, the form of the entire universe of variegated names and forms (Vishwa-roopah), is the Devata of the Mantra.

Vishnu is the theme of the chant; he is the altar before which the students prepare to offer themselves in a spirit of humble dedication and utter surrender. While mentally chanting the Mantra, the students install Vishnu in their heart with perfect sincerity and devotion, bringing the fingers from the lips down to touch the heart area at the centre of the chest.

D. Devakee-nandanah srashteti Saktih

The son of Devaki is the manifested energy, the power of creation.

Every Devata is a manifestation of supraphysical energy; the creator and sustainer (*Srashtaa*), the son of Devaki

(*Devakeenandana*) is that manifested power. This creative power is installed at the navel and, therefore, the fingers are transferred from the heart region to the navel.

E. *Shankha-bhrit nandakee chakree iti Keelakam*

The conch, the sword and the discus are hereby nailed.

The mighty creative power of supraphysical energy invoked and established at the navel cannot be conceived of by the mind. To establish it in our comprehension, this Mantra visualises the supraphysical energy and the power it generates in a human form. This form is one who bears the conch (*Shankha*), the sword named *Nandaka* and the discus (*Chakra*). This is the familiar figure of Krishna who is the friend, philosopher and guide of the confused and bewildered Pandava prince Arjuna. The conch represents the 'call' of Reality. *Nandaka*, the sword, punishes to bring joy (*Nandana*) into the community; and destruction (without which evolution is impossible) is represented by the concept of the discus. The blowing of the conch represents speech; wielding the sword represents action; and the discus, which flies away from the human agent, represents thought. Thus this great power installed at the navel expresses itself in the world through speech, action and thought.

This human form assists in the process of internalisation of the idea of supraphysical energy. To conceive this form fully is to hold fast to the feet of Krishna. So when this Mantra is being chanted mentally, the fingers move away from the navel and the seekers touch their own feet with both hands.

F. *Saranga-dhanva-gadaa-dhara iti Astram*

Saranga is the name of the bow of Vishnu and the mace is one of his weapons.

Since all treasure needs to be protected, when the installation of the supraphysical force has taken place the body has become a treasure-house to be protected. The seekers invoke the very weapon of Vishnu to stand guard in the defence of this treasure. Vishnu's bow is called *Saranga*, and the mace (*Gada*) is another of his weapons. These two form the artillery of defence of Krishna himself. At the moment when this Mantra is chanted in the mind, the students lift their hands away from the feet and, extending the index and middle fingers of the right hand, snap them on the open left palm.

G. Rathaangapaanir-akshobhya iti Netram

He who has the reins of the chariot in his hands is installed in the eyes.

As Lord Krishna, Vishnu played the part of the charioteer in the *Mahabharata* and thereby gained the name of 'he who holds the reins' (*Rathaangapaani*). By invoking the charioteer with reins in his hand, Vishnu is installed in the eyes of the seekers; at the moment of chanting this in the mind, the students touch both eyelids with the tips of their fingers.

H. Trisaamaa Saamagah Saameti Kavacham

He whose glory has been sung in all three types of Sama songs is the armour.

Vishnu is glorified in all three types of Sama songs (*Deva-Vrata-Prokta*), and these songs (*Saamagah*) are themselves glorious as the manifested *Sama Veda*.

While chanting this Mantra mentally, the seekers first touch their right-hand fingers to the right shoulder and left-hand fingers to the left shoulder. Thereafter, they cross their arms in front of their body and touch the fingers of each hand to the opposite shoulder, as if actually wrapping themselves in divine armour.

I. *Anandam brahmeti Yonih*

The Brahman, the Infinite Bliss is the very womb (Yoni).

The procreated world of infinite variety has only one source, which is Ananda, or bliss. When this Mantra is chanted, the seekers install it at the very place of procreation in themselves. This place in the divine temple of the body contains the one source from which the world has emerged, manifesting itself as the power of procreation.

J. *Viswaroopa iti Dhyaanam*

Contemplate him who manifests in the form of this universe.

The entirety of experience gained through the instruments of the body, mind and intellect in terms of perceptions, emotions and thoughts is indicated by the term *Visva*. He who has manifested as the total world of experiences (*Viswa*) must, therefore, be *Viswaroopah*. At this moment, the students interlock their fingers and sit in meditation.

K. *Ritam sudarshanah kaala iti Dikbandhah*

All directions are sealed by Truth, Sudarshana¹⁴ and Time.

Three mighty forces guard this abode of life in which Vishnu resides. The first is Truth (*Ritam*), which signifies the seeker's commitment to unflinchingly pursue what is true. The discus is the symbol of the strength and conviction with which to punish and annihilate any tendency which may cause the seeker to waver from the path of Truth. Finally, time guards this abode and ensures its survival. At this moment, the students snap the middle finger of their right hand to the thumb and run the palm of the same hand around their head.

L. *Sree-Maha-vishnu-preetyarthe jape Viniyogah*

This incantation is for the pleasure of the great Vishnu.

Having thus installed Vishnu within themselves and having surrendered to him, the seekers declare that they are going to engage in recitation of the 1000 names of Vishnu. The question may arise as to the purpose or motive for doing this. The answer is explicit and unambiguous in the Mantra itself (*Shri Mahavishnu Preetyarthe*). The incantation is purely for the pleasure and grace (*Preetyarthe*) of the great Vishnu. After chanting this dedication in their minds, the seekers spoon a little water into their right palm and pour it on the floor in front of them. The floor represents the earth, the base on which the seekers are placed.

These 12 'steps' help the seeker-students to realise that although they are invoking Vishnu, they are to seek their identity with that supraphysical power with no differentiation between themselves and Lord Vishnu. The final realisation is a perfect identity indicated in the great Mantra (*Mahavakya*) "I am Brahman" (*Aham Brahmasmi*). The installation ceremony declares that the enchanting form of Vishnu is to be ultimately realised as one infinite Reality without names or forms, in which the recognition of even the distinction between meditator, meditated upon and meditation is to cease. Besides this deep significance, the students also gain a sense of purity and sanctity.¹⁵

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- 1 Bhishma is the grand old man of the Kuru Dynasty. Yudhishtir is the eldest of the five Pandava brothers. The *Mahabharata* is the world's largest epic; it describes the battle between the two princely families of the brothers Dhritrashtra and Pandu.
 - 2 Monier Monier-Williams, Sir, *A Sanskrit-English Dictionary*, p. 999.
 - 3 *Encyclopedia Britannica*, 1996 CD-ROM edition.
 - 4 Japa is an exercise which involves repeating a word, formulation or passage a number of times. The number is usually predetermined, often ranging from, say, 108 to 100,000 and more.
 - 5 For a definition of the word 'Yajnya', see our chapter entitled "Yajnya:

Meaning and Significance”.

- 6 *Puri sete iti Purushah* — Swami Chinmayananda, *The Thousand Ways to the Transcendental: Vishnu Sahasranama*, p. 21.
- 7 *Nava Dvaare Pure Dehee* — *Bhagavad Geeta*, 5:13.
- 8 *Puraa Aaseet iti Purushah* — Swami Chinmayananda, *ibid*, p. 21.
- 9 *Pooryayti iti Purushah* — *ibid*, p. 21.
- 10 *Bhagavad Geeta*, 2:24.
- 11 *Bhagavad Geeta*, 2: 27.
- 12 Yantra is translated as “any instrument or apparatus, mechanical contrivance, engine, machine, implement, appliance” in Sir Monier Monier-Williams’ *A Sanskrit-English Dictionary*.
- 13 A meter consisting of four quarter-verses.
- 14 Sudarshana is the name of Krishna’s discus, which he uses to punish and destroy evil-doers.
- 15 The author of this work acknowledges his deep gratitude to the late Swami Chinmayananda who has explained the meaning of *Vishnu Sahasranama* as well as the significance of the installation ceremony in his commentary, *The Thousand Ways to the Transcendental: Vishnu Sahasranama*. This chapter is based on his commentary. It has been included in the book with a dual purpose: to give our readers an idea of the subtle variations in meaning suggested by the different appellations for the one supraphysical energy; and to reveal the significance of a ‘ritual’ which may otherwise appear obscure to an observer who is unfamiliar with the cultural context in which it is performed.



*wacham deva upjeevanti vishwe
wacham pashawo gandharva manushyah
wachima vishwa bhuvananyarpita
sano vavam jushitam indrapatni*

Wak sustains the universe,
Wak sustains animals, human beings and other species,
Wak is dedicated to creation,
Therefore I hail Wak,¹ wife of Indra.

TATTERIYA BRAHMANA 2:8:842:8:84



CHAPTER THIRTEEN

Indra and Vishnu: Two Warring 'Gods'



THE SEER-SCIENTISTS CHOSE VARIOUS FORMS OF communication and presentation with the intention of helping succeeding generations to store, retrieve and convey their profound messages. Of these numerous forms, the *Puranas* are extremely important and are as valid and ancient as the *Vedas*. There are several *Puranas*, each being a collection of narratives which communicates eternal truths and insights in the form of stories; these same truths are expressed in a succinct form in the *Veda Mantras*.

The *Brahmana*² books speak of the *Puranas* with great reverence. Maharshi Badarayan Vyasa collected the ancient narratives into a *Purana Samhita*, which he described as the fifth of the *Vedas*. Unfortunately, like hundreds of branches of *Veda Samhita* — the *Brahmanas*, *Aranyakas* and *Upanishads* — this *Purana Samhita*, the fifth *Veda*, has been lost to us. Fortunately, the great *Purana* scholar Maharshi Soota compiled those narratives handed down by seers and sages from generation to generation in 18 volumes, and these are now known as the *Eighteen Puranas*.³ They are available today in somewhat scattered form.

The *Veda Mantras*, or 'hymns of the *Vedas*', have three components:

1. *Vijnana*, the science of creation as brought to light by the seer-scientists;
2. *Stuti*, the songs of the glory of the supraphysical forces, which express the ecstasy experienced by the sages on 'seeing' the bewildering and enchanting magnificence of reality; and

3. *Itihas*, historical episodes illustrating and explaining the supraphysical forces and their operations.

The *Puranas* also illustrate and elaborate the truths enunciated in the *Vedas*. Unable to decipher the meaning and significance of the *Puranas*, Western translators and commentators have dismissed them as a bundle of myths. When they failed to comprehend the meaning of a *Veda Mantra*, they would describe it as a work in which "sectarianism creeps into mythology."⁴

The *Vedas* and *Puranas* contain many stories of quarrels and competitiveness between Indra and Vishnu, described by the above-mentioned translators as 'gods'. But what exactly are the skirmishes between these two Devatas about?

This chapter introduces the reader to a way of discovering the true meaning of such episodes. We are once again entering the universe of the supraphysical energies, the world of the Devatas.

INDRA AND VISHNU: TWO WARRING 'GODS'

Brahma is the foundation of all objects in the universe, the first-born, the first to appear in the process of creation.⁵ The word 'Brahma' is thus indicative of the fundamental element, original factor or basic substance. In every object in the world we witness a factor which is its foundation. This factor is the source from which an entity arises; it is the 'seed' from which a huge tree grows. This factor has been called *Pratishtha Brahma*. In some objects this supraphysical energy is in abundance, while in others it is present in a far more meagre quantity.

Lightning flashes in the sky and vanishes as quickly as it appears. Words float on the air and then fade away. Clouds form and disperse. This lightning, these words and clouds do possess supraphysical energy but only in a small amount. Conversely, objects in which Indra is present in larger

measure have less durability. For instance, substances like chloroform and methylated spirits vanish in the air immediately. Indra sucks the juice out of them, as it were, and drains them. Objects like books, pens, hills and so forth have a larger measure of the supraphysical energy of durability called Brahma. So we have the two opposites of Brahma as the factor of stability and durability and Indra as the factor of motion, inducing change and volatility.

Indra possesses the power of dynamism (*Vikshepana*). This attribute is *Shachi*, described as Indra's wife. The power of Indra which manifests itself as speech is called *Wak* and in that form of dynamism it is known as 'Wak, Indra's wife'. The term 'Indra's wife' is an expression of various forms of manifestation of the supraphysical energy called Indra, and should not be construed as Indra having several wives.

Indra performs 14 functions, and thus it is stated in the *Vedas* that there are 14 Indras. Each of these has a separate name, most of these names and the associated functions being self-explanatory. *Vijnan Atma* in our body is a manifestation of the accumulated *Indra Prana* located in the sun. *Prajnan Atma* is also formed from this Indra. When *Mana* establishes a relationship with Indra, it is called *Prajnan Atma*. *Vijnana* and *Prajnana* have a close relationship, since the mind and intellect are intimately interconnected. *Prajnana* exists because of *Vijnana*.⁶

Indra as the solar *Prana* is the base of *Atma*. This supraphysical energy exits from the eyes and other organs, which act as outlets and are thus known as *Indriya* (organs). This Indra, which rules over the objects and keeps them alive and glowing, is called *Atmendras*, the first of the 14 Indras.

The second function of Indra is known as *Satya*, constituting the inherent nature of an object. Every object in the universe has some intrinsic traits which define it and

are its 'destiny'. The entire universe is dependent, as it were, on the 'destiny' of each object. Water always flows downwards, fire always rises, air always flows horizontally, no horns grow on human beings while cattle always have horns. The laws of *Satya*, the inherent attributes of an object, can never be violated. *Satya Indra* is the Indra which resides inside every object and regulates its 'nature'.⁷ It is the supraphysical energy which internally regulates every object in the universe — earth, water, sun, air, space, planets, stars, speech, eyes and so forth. It performs various roles and, manifesting in different organs and different forms, is the listener, the seer, the knower and the thinker.⁸

Heat is the inherent attribute of fire, while light is the attribute of Indra. Light emanates from the sun, and the Prana which causes light in the sun is called *Jyoti Indra*.

Age is another function of the sun. A child is one year old when the earth has revolved around the sun 365 times. As solar Prana is Indra and age is a function of the sun, Indra is also called *Ayu* (age).

When we rise in the morning, generally we are full of energy and vitality. The Indra which causes this vitality and exuberance is known as *Indra Mahah* ('enthusiasm', 'vigour' or 'ebullience').

Lightning, the eighth Indra, is also caused by the sun and is called *Vidyut Indra*, while the ninth is simply known as Indra, without any additional appellation. The strength in various objects is a function of this Indra.

The 10th Indra is called *Wak* and is divided into four categories. Normal human speech, composed of letters and words, is known as *Brihati Wak*. This Indra is the supraphysical energy that causes speech. When the corresponding Prana gathers together, speech becomes possible. As we explained earlier, this *Wak* is also known as 'Indra's wife'.

The 11th Indra is space, and the 12th is the supraphysical energy which resides in a vacuum and is known as *Swa Indra*, or sometimes as *Shuna Indra*. (The word *Shunya*, meaning 'vacuum' or 'zero', is derived from *Shuna*.)

All appearances in the world are based on *Prajnan Mana*, from which all forms arise. The Indra which causes all these forms is called *Roopa Indra* and is at the root of the mind. Mind is transformed into forms, and every form is a particular state of mind. When the mind begins to chase something, it tends to do so again and again. This Indra is called *Okah Sari*, and it lies at the base of all appearances and forms.⁹

The 14th Indra is motion (*Gati Indra*). As we know, motion or change is the opposite attribute to durability.

We mentioned earlier that Brahma is the foundation, which acts as a platform. On this platform, a continuous battle rages between Vishnu and Indra, since these two are in constant competition. Indra expels Prana from the body while Vishnu ushers nourishing food from outside into the body to compensate for the loss of Prana. Vishnu has been called the 'foundation of all foundations'. It is inflow. So it appears that there is a natural competition between inflow and outflow, a continuing rivalry between the factors of stability and steadfastness on one side and change and motion on the other. If we look more closely, however, we find that stability or constancy is, in fact, an ensemble of motions. That which wishes to travel outwards in all directions is, at the same time, unable to move in any direction at all.¹⁰ This is durability, and the source of this Brahma of durability is Vishnu. The source of motion, on the other hand, is Indra. But durability is a state of dynamic stasis. It is a state of equilibrium between the forces of change and of immutability. Therefore, Vishnu is also known as Upendra or *Indravaraj* (Indra's brother).

The universe itself is full of activity. It is a dynamic

entity in which motion occurs everywhere. Motion falls into the two categories of inflow and outflow (of energy) and, as we have pointed out above, the inflow is Vishnu and the outflow is Indra. No motion is possible, however, without a platform or base, which is Brahma. Brahma is the basis of the universe which is ever-changing, mortal and Martya (that which is mutable).

Since Brahma is the first to be born, we can deduce that the supraphysical energy of durability is the first to surface in every object. The process of birth itself is a consequence of motion, in which the inflow and outflow combine as the 'mother' of the entire universe. That which occurs by way of inflow is Soma, whereas that which occurs with the outflow is Agni. The entire universe, then, is reproduced from the interaction between Agni and Soma. The male gamete is Soma and the female is Agni; these unite in the process of fertilisation. Thus Brahma, Vishnu, Indra, Agni and Soma are the five supraphysical factors which give rise to this universe, the essential 'elements' of creation.

Brahma, Vishnu and Indra reside in the centre of every entity or 'individual'. They constitute the heart of an individual, the point at which the inflow (Vishnu) and outflow (Indra) of supraphysical energies take place on the one harmonious stage of Brahma. This continuous process is what is described as the conflict between these two warring 'gods'.

1 Sir Monier-Williams translates Wak as follows: "Speech, voice, talk, language (also of animals), sound (also of inanimate objects as of stones used for pressing, of a drum &c), speech personified in various forms, in the Veda she is also represented as created by Praja-pati and married to him, in other places she is called the mother of Veda and wife of Indra, but most frequently she is identified with Bharato or Saraswati, the goddess of speech." (*A Sanskrit-English Dictionary*) To understand the true significance of Wak, please refer to the explanation of Mana,

- Prana and Wak in the chapter entitled “Jeeva, Ishwara and Parmeshwara”.
- 2 Please see the chapter entitled “The *Vedas*: A Prologue”, in which the three sections of the *Vedas* — the *Brahmanas*, *Aranyakas* and *Upanishads* — have been explained.
 - 3 The usual list of the *Puranas* is as follows: the *Brahma-*, *Brahmanda-*, *Brahmavaivarta-*, *Markandeya-*, *Bhavisya-*, and *Vamana-Puranas*; *Vishnu-*, *Bhagavata-*, *Naradiya-*, *Garuda-*, *Padma-*, and *Varaha-Puranas*; and the *Shiva-*, *Linga-*, *Skanda-*, *Agni-* (or *Vayu-*), *Matsya-*, and *Kurma-Puranas*.
 - 4 *Encyclopedia Britannica*, CD-ROM edition.
 - 5 *Brahmai wasya sarvasyapratishjta Brahmaai sarvasya prathamajam* — quoted by Pandit Motilal Shastri in *Pratishtha Krishna Rahasya*, p. 1.
 - 6 *Sa wa esha prjanatma vijanatma samparishwaktah* — *ibid*, p. 2.
 - 7 *antaste dyava prithwi dadhami* — *Yajur Veda*, 7:5.
 - 8 *Okah sari wa Indrah yatra wa Indrah poorvam gachhati eve tatraparam gachhayi* — *Aitereya Brahmana*, 6:17:22.
 - 9 *Okah sari wa Indrah yatra wa Indrah poorvam gachhati eve tatraparam gachhayi* — *ibid*, 6:17:22.
 - 10 *ekakalawachhena sarvatah gati* — Pandit Motilal Shastri, *ibid*, p. 5.



SECTION FIVE

Vedic Insights and Their Practical Applications

*sapta homah samidho ha saptah
madhooni saptartavo ha sapta
saptajyani pari bhoota mayan
tah sapta gridhra iti suhrooma vayam*

We have heard that the Self is equipped
With seven senses* that excite passions,
Seven subtle senses which imbibe knowledge,
Seven tendencies and seven desires
Emanating from the physical organs.

ATHARVA VEDA 8:9:18

- * Seven senses: skin, eye, ear, nose, tongue, mind, intellect.
Seven subtle senses: sound, touch, sight, taste, smell,
thought, meditation.
Seven tendencies: lust, anger, avarice, infatuation, pride,
hatred, self-praise.
Seven desires: fame, wealth, procreation, happiness, worldly
position, health, salvation.



CHAPTER FOURTEEN

Harnessing Our Untapped Potential

Retraining the Body, Mind and Intellect



THE UNIVERSE OF THE SEER-SCIENTISTS IS HOLISTIC, with an underlying unity of microcosm and macrocosm. Within this context a human being is regarded as a composite whole of body, mind, intellect and Atma. Moreover, there is an element of commonality between all objects in the universe, whether inanimate or sentient.

For example, every object has a form, within which is the substance or matter of which that object is made. In addition to form and matter, there is motion, activity or dynamism, which causes change. Then there is the energy that sustains objects. However, it would be wrong to conclude from these similarities that human beings have evolved from animals, that animals have evolved from plants or vegetables and that living organisms have evolved from inert matter.

The seer-scientists tell us that all living organisms and inanimate objects are manifestations of supraphysical energy. In the final analysis, the universe has evolved from one uniform, indivisible, infinite supraphysical energy source, which gives rise to innumerable finite objects. As an analogy, we can say that one limitless ocean has transformed itself into numerous transient waves. These principles and forces underlying the cosmic process are the foundation of other sciences developed in the four *Vedas* and their auxiliary texts.

HUMAN BEINGS: A WHOLISTIC PERSPECTIVE

Human beings are the highest manifestation of that supraphysical force, and the latent potential of humanity is vast indeed. In fact, human beings alone are able to approach that force. The seer-scientists tell us how to harness this potential to the maximum, providing us with methods to enable us to move towards realising our latent possibilities to the full and enhancing the personal level of our capabilities.

These methods are wholistic since they do not divide us as individuals into separate compartments; thus, our body is not placed in isolation, set apart from our other aspects. They aim at the simultaneous well-being of body, mind and intellect, and establish their unity with Atma. This is fundamentally different from the ways of modern science, which looks at human beings as aggregates of their parts. The emphasis on human anatomy — which is basic for a modern physician — isolates the body from other facets such as the mind and intellect. The parts of the body are considered as separate entities for the purpose of the treatment of diseases, and specialisation has developed upon this basis. The fact that the whole is more than merely a sum of the parts is forgotten.

Modern science has continued to flourish from one erroneous assumption to another. For example, the Greek physician Galen, hailed as a pioneer in the field of modern anatomy, insisted that tiny pores existed in the heart through which blood passed from the right to the left ventricle. This error was accepted as a medical truth throughout Europe for more than 1000 years. The so-called scientific basis of modern medicine was created in the 19th century, not long after the emergence of psychiatry as a discipline, and the basic medical sciences were established

only in the 20th century. Yet this very modern medical science dominates the scene today, discrediting far older systems of healing and health care in the process.

THE THREAT TO TRADITIONAL HEALTH CARE

The vast majority of human beings have suffered, and only a few have gained from the dominance of modern scientific thought. But a realisation of the inadequacy of so-called 'modern medicine' has begun to dawn on people, even in 'advanced' countries. A study cited in the *Journal of the American Medical Association* reports that one-third of all American adults are using 'unconventional' medicine, at a cost of 10 billion dollars annually. Commercial interests and the power of advertising have divided medicine into the 'conventional' or 'mainstream' (by which they refer to what we know as modern medicine) and the 'unconventional' or 'alternative' as their label for the ancient medical systems in our world.

Ayurveda is one such ancient medical science, perhaps the most ancient still known to our world today. It is a comprehensive system of healing, health care and longevity which has served humanity for thousands of years, and was bequeathed to us by the seer-scientists of the *Vedas*. They also gave us Yoga, an integrated system of harnessing the untapped potential of body, mind and intellect. We shall share with our readers a brief outline of these systems, with a view to demonstrating that the concept of supraphysical forces is not mere metaphysics, mysticism, superstition or baseless speculation. Rather, Ayurveda and Yoga both have a practical and creative role in caring for the body-mind-intellect entity in everyday life. Ayurveda is the subject of the next chapter, while this chapter focuses upon Yoga.

YOGA AND THE SCIENCE OF THE BREATH

Let us first take a look at how Yoga helps us to keep our body healthy, although it should be realised that Yoga does much more than this. *Raja Yoga* is fundamentally concerned with mental control, while *Hatha Yoga* lays greater emphasis on the discipline of the body. At this juncture, the body is a good starting point for our discussion since it is tangible and obvious. There are various components of Yoga; we shall begin with an exploration of the role of the breath. We have already become acquainted with Prana, or supraphysical energy. Our breathing is the operation of Prana in our body or, in other words, it is the means by which supraphysical energy functions in us at the physical level.

As we noted earlier, Prana is the life-force that pervades the entire universe and exists in all living forms, such as human beings, animals, birds, plants and organic tissues. It is our common bond with everyone and everything else that lives on the planet. It makes possible all the different forms and species. Without Prana, life on earth and in the universe would collapse.

Prana also exists in non-living objects or forms of matter, as energy stored in their atoms and in the magnetic, gravitational or electrical fields which they create. But the intensity of Prana in living forms is of a higher order and purpose than that in non-living forms. Among living forms, the intensity and character of Prana in a living human being is of a higher order than in other species.

Distractions of mind and breath, which result in distortions in the generation of Prana and in its distribution throughout the body, weaken the functioning of some body parts, accelerate the functioning of others, and ultimately lead to the formation of disease. The physical Prana consists of elements of consciousness and energy; these

incorporate the five characteristic principles of solidity, liquidity, form, air and vacuity and feed the five elements of sense perception of the body: odour, flavour, colour, sensation and sound. If any of the sense perceptions or functions of the physical body are significantly damaged, the distribution of Prana is disturbed. In the absence of a proper control over the formation of physical Prana, the disturbance to Prana generally results in the formation of acute disease in the physical body.

THE ELEMENTS AND THE SENSE ORGANS

As we know, the nose, tongue, eye, skin and ear are the sense organs, and their objects are smell, taste, colour, touch, and sound respectively. The five vital elements of earth, wind, space, water and fire interact with these sense organs and their objects.

A sense organ (Jnana Indriya) is conceived as material and as being of the same matter as one of the five elements, which is why it is able to grasp the specific property of the element of which it is made. Each element has a specific property which is not shared with any other: earth has smell as its specific property, water has taste, fire has colour, wind has touch and space has sound. Space is unique, all-pervading and eternal.

The concept of *Tanmatra* has been developed to describe the link between the sense organs and the elements. The properties of elements are specific to particular qualities, which share something in common. For example, there are different sounds based on numerous variations in pitch, volume, tempi and so on, but all have the property of being a sound. That which is the mere general sound is called *Tanmatra* or 'only that', and is considered as a state of matter in the cycle of transformation. *Tanmatra* is subtle, and is subject to

further transformation into a gross element. This transformation is such that the elements issue out of one or more Tanmatras and have one or more of the corresponding properties.

YOGA: AN INTRODUCTION

The word Yoga derives from the root *Yuj* which means 'to yoke'. Yoga is the fact of yoking, of placing under the yoke, of mastering, of subduing. In that sense, Yoga is the restraint of mental processes. As the root *Yuj* also means 'to unite', the term 'Yoga' has been translated as 'union', in reference to the experience of oneness or union with our inner being or Self. This union is the mind uniting with the body and breath to attain a higher level of consciousness. The integrated approach of mind and body control, which is Yoga, leads to ultimate physical health and happiness, together with the achievement of mental peace and tranquillity.

Within Yoga we quickly meet the concept of Pranayama. Prana refers to the supraphysical energy as it descends into the human body. *Yama* is the control and direction of that energy. Prana-yama, therefore, is the control and direction of this vital energy via steady breathing. Regular, conscious breathing patterns actually increase the Prana in our body which results in good health at every level, and this is why Pranayama is such an important component of Yoga practice. Pranayama is a breathing exercise with three phases of the breath — intaking (*Pooraka*), suspending (*Kumbhaka*) and giving out (*Rechaka*) slowly, according to prescribed timings.

Pranayama controls both mind and supraphysical energy. It is usually accompanied by the practice of *Asana*, body positions in which the practitioner remains steady and comfortable, both physically and mentally, for a desired length of time without strain. Asanas help the muscles to

relax by improving circulation, which in turn relieves accumulated tension and stress. Stretching helps to tone and condition the muscles, thereby helping to prevent injuries.

Meditation is another important component of the system of Yoga, one with enormous power and potential. Meditation, or *Dhyana*, is "an act of attention directed to some particular object. When prolonged and intensified, it gives rise to *Samadhi* or concentration of the mind, the consequence of which is the cessation of all the mental processes."¹ At this stage, let us content ourselves with the preliminary understanding that meditation is the practice of mindfulness, focusing on awareness wholeheartedly. It brings about a feeling of happiness, fulfilment, contentment and peace, and enables us to integrate our body, mind and spirit.

Now we shall briefly look at Yoga in a deeper sense. Raja Yoga and Hatha Yoga are the two main schools of Yoga mentioned earlier, Raja Yoga being fundamentally concerned with mental control and Hatha Yoga laying greater emphasis on the discipline of the body.

YOGA: GOING DEEPER

The body, mind and intellect are a human being's principal equipment with which to gain knowledge of the universe and discover Truth. It is crucial, therefore, to keep this equipment in a healthy state and continuously to sharpen the tools of the mind and intellect.

India's seer-scientists gave us various systems of Yoga to achieve the goal of integrating our body, mind and intellect with Atma, thereby realising our fullest potential. Self-realisation is the goal, the highest achievement for a human being. In other words, emancipation from pain and sorrow and the attainment of bliss and happiness are the supreme purposes of life.

Patanjali is the most renowned seer-scientist today because he documented the principles and practices of Yoga in his great work, the *Yoga Sutras*.² Literally, Sutra means a 'string'; each Sutra consists of aphorisms explaining the philosophy and practice of the subject, which in this case is Yoga. Yoga is an important part of the Indian philosophical system which comprises six schools: Vedanta or Uttara Meemamsa, Poorva Meemamsa, Samkhya, Yoga, Nyaya and Vaisheshika. These can be thought of as six roads to a goal, all of which intersect each other and are harmoniously interlinked.

Patanjali's *Yoga Sutras* guide us to a state of Samadhi, or total absorption in the Self, which is reached through prolonged and intense concentration of the mind. In the *Sutras* he reveals the means and practices to attain this state, which include: an experiential element made up of (a) the method, which produces Samadhi, by means of which complete and absolute concentration or cessation of thought processes is attained; and (b) the process, which occurs in the mind while this cessation is being produced. Samadhi is an intense and prolonged concentration of the mind, whereby the mind is fixed on a specific object (a thing, sound, image, idea). As a consequence of this act of intensified attention, the object occupies the entire field of consciousness. There are different stages of Samadhi. The *Yoga Sutras* help us to understand the accomplishments (*Siddhis*) which can be attained through the practice of Yoga. These accomplishments are acquired by Yogis in the course of their practice, but do not constitute their ultimate goal.

THE HUMAN MIND

In order to understand how we may free ourselves from pain and suffering, we first need to gain some insight into how our mind works. Patanjali describes Yoga as "the restraint of the

processes of Chitta" (*Chitta Vritti Nirodha*). Although we may translate this word Chitta as 'mind', we need to distinguish this from the word Mana as 'mind' employed elsewhere in this text. Here, mind or Chitta should be "viewed as the seat, the organ or the aggregate of intellection (cognitive), volitional and emotional activities, functions and processes of the individual."³ For the present, it may be understood as mind. Vritti is an activity, a function or an act of the mind. It is not a product in which this activity culminates, although the activity and its product are intimately and indissolubly bound to each other. For instance, one of the *Vritti Anumanas* is the activity, process or act by means of which the mind constructs an inference or reasoning which implies a conclusion.

According to the Samkhya, the Vrittis are actually modifications of the mind when it assumes the form of the object which it perceives. Nevertheless, we prefer the expression 'processes' because although Vritti can be conceived of as a modification, it is undoubtedly a process, an activity, a function, an act of the mind.

Nirodha is restraint.⁴ It indicates the total restraint of the mental processes, leading to a voluntary and transient cessation of these same processes. The Yogi produces such restraint in him or herself by means of his or her will, for a determined length of time.

The human mind has five characteristics: it (1) fantasises, (2) forgets and (3) vacillates. By practising Yoga it can be (4) restrained and (5) made one-pointed.

Contemplation is impossible when the mind vacillates. On the other hand, the one-pointed mind illuminates Reality and destroys various afflictions. Every action has a reaction. The activity and reactivity of our mind bind us and virtually drag us along that path of action-reaction. When the mind becomes one-pointed, that bondage of actions and their

results is loosened and brings restraint. The one-pointed mind facilitates discrimination between right and wrong, helps us to choose what is constructive and to reject what is unconstructive, and leads to clear vision and ultimately to joy. The final goal of Yoga is restraint of those mental activities which cause afflictions and sorrow.

The mind is possessed of three energies: illumination (Sattva), activity (Rajas) and inertia (Tamas). The intellect is the essence of these; it is the state of mind which is charged with the energy that activates the quality of illumination or Sattva. Distortions, such as an attachment to power or sense objects, arise when this intellect is mixed with the other two energies of Rajas and Tamas in varying proportions. Attachment and the absence of knowledge ensue when the quality of inertia (Tamas) is predominant. When the more active energy of Rajas predominates, knowledge, non-attachment and power develop. Deep meditation and contemplation become possible when the mind is free of the last traces of impurity of the active energy of Rajas.

Different terms are used to distinguish one state of mind from another. Purusha⁵ is unchanging, pure and infinite. Buddhi is the essence-power of the mind, which approximates the intellect, possesses qualities and is activated by energies. As such, Buddhi is different from Purusha. "Buddhi admits of change and modification having objects known or unknown. A jar or a cow is either known or unknown to buddhi. But purusha has its object always revealed to it. Purusha knows its objects constantly. Therefore, purusha is immutable and unmodifiable. Buddhi is subservient to something else, as it functions in co-ordination, but purusha exists for its own sake. Buddhi is constituted with three gunas,⁶ and is insentient while purusha is the consciousness revealing buddhi with its modifications."⁷

At the other end of the spectrum is *Viveka*. Our capability of blending the faculties of discrimination between right and wrong, investigation into facts and truth, deliberation about causes and consequences, and judgement based on all these factors is known as *Vichara*. When this power is fully internalised it becomes *Viveka*, or 'intellective revelation'. The word 'revelation' should not suggest that *Viveka* is clairvoyance or occult power. Instead, it is the augmentation of the capabilities of the human mind, achievable through practice by anyone who is prepared to make sincere efforts to acquire it. It is very important to understand this distinction.

ACTIVITIES OF THE MIND

The mind is constantly active and exhibits its activities incessantly. These manifold exhibitivie activities of the mind, some of which are painful and some non-painful, need to be restrained. Painful activities cause afflictions, which are the breeding ground for the growth of *Vāsana*, deeply entrenched impulses which are the catalytic agents for action. Often experienced in the form of irrepressible and strong urges, impulses or desires, the *Vasanas* are the principal vehicles of actions.

Every object has some inherently unchanging and unchangeable attributes. Water flows downwards, for example, while smoke rises. Fire generates heat and it burns, whereas ice makes things cool. All these attributes are caused by supraphysical energies, and neutral or non-painful activities of the mind are not in conflict with the function of these energies. They can be conducive to and harmonious with the individual person. On the other hand, activities of the mind which have painful results are those which are hostile and opposed to the individual's inherent traits.

On occasion, an act may appear to be painful but very soon we find that it is not actually so, and vice versa. For instance, when a student is required to work hard for his or her studies, it is painful in the short-term. But in the long-term, it is usually beneficial and, therefore, not painful. Some other unconstructive activities remain so even if wrapped in a non-painful package, such as the consumption of drugs or alcohol. This may appear to be pleasant at the time, but in the long run is painful.

All activities leave their imprints on our mind, creating Sanskaras or habitual potencies. Sanskaras are subliminal impressions. Any expression of the mental life (mental processes like emotions, passions, habits and desires) deposits in the mind a Sanskara or latent subliminal impression. These impressions constitute the predisposition, the 'seed' of other new manifestations of mental life.

Sanskaras have considerable power and continue to accumulate, giving rise to a cycle. An activity of the mind leads to a Sanskara, which in turn leads to activity. Thus the wheel keeps moving: habitual potencies of various types are generated by the mind's activities, which are themselves generated by habitual potencies. Someone drinking alcohol regularly generates the habitual potency or Sanskara for alcohol, and that Sanskara gives rise to the impulse to drink alcohol. This wheel of activities and habitual potencies continues to revolve without cessation.

FIVE CATEGORIES OF ACTIVITY

The activities of the mind fall into five categories: real cognition, perverse cognition, fiction, sleep and memory. These are technical terms used in the science of Yoga, the broad meaning of which will be explained here. Various layers of meaning connected with these terms become clear

as a student proceeds with the study, practice and experience of Yoga.

Real cognition comprises perception, inference and verbal cognition. Perception is the activity of the mind in relation to external objects. It gathers the features, properties and attributes of those objects through the channel of the sense organs, and determines the generic and specific nature of the objects. Our universe consists of innumerable objects, and it is the function of the mind to know them.

Inference is the mental operation which reveals the connection and similarity between the same class of inferable objects, and the disconnection and dissimilarity between another class. It principally determines the generic nature of objects. Our cognition of an object is not always based on direct perception or inference. We often come to know of an object because a knowledgeable person tells us about it. A competent person captures in words the object (s)he has seen or inferred, and this process of capturing it is in order to transfer that knowledge to another person. While the mental operation concerning the object derived from words is verbal cognition for the listeners, this verbal cognition may remain somewhat tentative in their minds, since they have neither seen nor inferred the object under discussion. For the speaker, however, verbal cognition has a strong and steady foundation.

Perverse cognition is false knowledge and is destroyed by real cognition. The latter is based on the reality of an existing object. We may mistake a rope lying on the ground for a snake, and fear seizes us by the throat. However, as soon as we become aware that it is merely a rope, the perverse cognition disappears and the fear subsides.

Avidya causes perverse cognition. Some commentators have translated Avidya as 'non-science' or the absence of a

'scientific' attitude. Here the reference is to the science expounded in Yoga. For the purposes of our study at this stage, let us understand Avidya as a state of unawareness, or nescience. It causes five afflictions, of which ignorance and egoism are predominant. These seriously hinder our correct judgement and discrimination. Due to Avidya, we perceive the ego as 'I'; then we become attached to anything we consider favourable and hostile to those things which seem antagonistic.

Attachment (*Raga*) is a serious affliction of the mind which causes considerable distortion and disturbance. When we become deeply attached to an object, perverse cognition follows. Similarly, aversion (*Divesha*) impedes real cognition, as does the last but not least of the afflictions, namely the tendency to cling or grasp (*Abhinivesha*). This is noticed when we refuse to change our understanding, even in the face of facts which indicate that our earlier perception was wrong. The system of Yoga categorises these afflictions to include ignorance, stupidity and blind stupidity. These afflictions collectively are also known as mental impurities.

We have listed 'fiction' as one of the five forms of mental activity. Fiction here should not be interpreted in its literal sense of a figment or an unreality. It is used here as a technical term, to mean something which is devoid of substance and which arises neither from real cognition nor from perverse cognition. Yet, even though it is devoid of substance, it can be seen and understood. Real cognition acts upon the real nature of an existing object, while perverse cognition acts upon the existing object in an oppositional way, i.e. it takes the object to be something other than it is. In the case of fiction, however, there is no substance or existing object. It is something created by the mere use of words, sheer fabrication. Such phrases as "castles in the air", "the horns of a hare" and "the son of a barren woman" give

an idea of what the technical term 'fiction' seeks to convey in the context of mental activity.

The mind is not free from all its exhibitivie activities even in sleep. We have all noticed various thoughts occurring when we wake up, such as what a refreshing sleep we had, or how disturbed our sleep was and how sluggish and feeble our mind feels as a result. Had there been no experience of such cognition during sleep, we would not have these recollections on waking. There would be no thoughts based on that cognition. Therefore, sleep is a particular form of cognition, and needs to be restrained along with all the other exhibitivie activities of the mind.

Now it is time to bring Atma back into our discussion. Atma is translated as 'Self', and we are said to possess a lower Self and a higher Self. The lower Self passes through three states of consciousness: Jagrata (the conscious mind), Swapna (the subconscious mind) and Sushupti (the unconscious mind). These are operational in the waking state, in dreams and during deep sleep respectively. The higher Self remains forever in a state known in the science of Yoga as Tureeya, which is a supraconscious, unchanging state of mind. The objective of Yoga is to free the lower Self of all afflictions and thus pave the way to a realisation of the true nature of our higher Self.

Smriti is generally translated as 'memory'. According to some scholars this translation is correct only in relation to one aspect of Smriti, and so they prefer to translate Smriti as 'attention-memory', emphasising its two fundamental aspects. "Unfortunately in English (there) does not exist a word that covers the phenomenon indicated by the word Smriti in its totality, and embraces all its aspects. An adequate translation would perhaps be retentive power."⁸ Traditionally, it is accepted that Smriti is the mental process of memory

in its aspects of retention and of remembering. Thus, Smriti encompasses both attention and memory.

According to Indian psychology, the mechanism of memory broadly functions as follows: an object perceived in the mind does not only produce a *Pratyaya* — an idea or image of the form in which the object is perceived — but also leaves a *Sanskara* in the mind, a latent, subliminal, unconscious impression. This is the form in which consciousness retains the object. When the *Sanskara* is reactivated, it passes from the realm of unconsciousness to that of consciousness: memory and remembering are then produced. This implies that the object has not completely disappeared from consciousness but is retained there in some way. In other words, the object is tucked away, as it were, at the level of the unconscious until the moment when it is reactivated. The mind remembers its cognition of objects, and there are three elements in this process: 1. cognition; 2. a receivable object; and 3. a receiving instrument. Cognition begins the formation of *Sanskaras* or habitual potencies of the same class, producing a memory of the same form and nature.

Intelligence is the productive faculty, while memory is the reproductive faculty. Memory is two-fold: it is either a creation of the mind or a creation of worldly phenomena. All these memories arise from the experience of real cognition, perverse cognition, fiction, sleep and attention-memory. These mental activities are all related to pleasure, pain and ignorance, which are described as afflictions in the philosophy of Yoga. Attachment follows the experience of pleasure, aversion follows the experience of pain, and ignorance is caused by lack of awareness. It is emphasised in the *Yoga Sutras* that all these mental operations must be restrained if we are to realise our full potential. How can this be achieved?

RESTRAINING OUR MENTAL ACTIVITIES

We are able to restrain the activities of our restless mind through practice and non-attachment. The seer-scientists discuss various practices associated with this goal exhaustively, but first let us determine the true meaning of the term 'non-attachment'. When we close our eyes and try to observe the activities of our mind, we see that thoughts rapidly arise and then fade away. The stream of the mind flows both ways; wholesome thoughts come sometimes, and at other times the thoughts are unhealthy.

In Yoga we begin by noting the fact that thoughts flow, either towards beatitude or towards evil. That which takes us towards Viveka is the flow of beatitude, while those thoughts which incline towards ignorance are the flow of evil. There is no English equivalent of Viveka, which is the intellectual power to distinguish the supraphysical from the physical, or spirit from matter. We can simply say that Viveka is the power of discrimination, the power to distinguish right from wrong.

The critical point here is that the flow towards sense objects is halted by an attitude of non-attachment in the mind. The flow of the intellectual, discriminating power is enhanced by the practice of intellectual revelation. We are not talking here of the kind of revelation mentioned in some religions. In fact, it is not even intuition. Intellectual revelation is the process of decision-making undertaken by a mind which has been so sharpened by practice that it can complete a whole range of complex analyses in a flash. This power comes with the practice of Yoga.

We need to make a sincere effort to ensure that the restraint of our mental activities becomes steady and enduring. When a steady restraint is achieved, the mind is freed from exhibitivie activities and flows peacefully. Restraint becomes firmly established when it is pursued for a long time

without cessation from the practice and with an attitude of dedication to the path and the goal. Restraint must be pursued with *Shraddha*, which is the motivation or commitment to an idea or a person, in which fervent aspiration and faith are blended with love, respect and devotion. Restraint cannot be achieved quickly, and the path of the practice of Yoga is no easy path. Restraint of mental activity may also not be achieved merely by the study of Yoga in books. The role of the Guru, or guide and teacher, is crucial.

The idea of non-attachment also has to be properly internalised and understood in the correct sense. It refers to the absence of craving for sex, food and drink, power and so forth. This does not mean that the practitioner is aspiring for heaven and other-worldly attainments, nor is it a denial of food, sex and so on. Non-attachment is the controlling consciousness of a person who has overcome the craving for these tangible but fleeting pleasures. A non-attached Yogi (someone who is accomplished in Yoga) does not crave these pleasures, but at the same time is not envious of those who enjoy them.

Meditation enables us to develop the intellectual power by which we may gain this attitude of non-attachment. This is the highest state of knowledge, and when it is attained we come to know that the afflictions which had to be destroyed have been destroyed. Only then may we earn the name of Yogi. Having attained this state, the Yogi continues the ascent to higher stages of absorption of mind in Atma and the release of latent energies.

We shall now explore in brief the next stage, which is Samadhi, the state of complete poise and total concentration. This state is preceded by the acquisition and cultivation of the qualities of *Shraddha* — courage, retentive power, spiritual absorption and intellectual vision. *Shraddha* is a

judicious blending of faith, conviction, trust and devotion. Generally, 'faith' is used to convey the feeling of Shraddha. But, as with other English translations of Sanskrit words, it is an inadequate substitute. In the context of Yoga, faith is the acceptance of the reality of Yoga and conviction in the excellence of the goal; it includes conviction in the effectiveness of the methods to reach the goal. Conviction and trust, devoid of all doubt and accompanied by a sentiment of mental calmness, are essential ingredients of Shraddha.⁹

Shraddha sustains the Yogi like a benevolent mother. Courage is born in the faithful aspirant seeking the intellectual power of discrimination, and retentive power comes to such a person with ease. The mind is freed from disturbances and becomes spiritually absorbed. It needs to be emphasised that this state is not the same as achieving a void-like blank state of mind by the suppression or neglect of thoughts.

The *Yoga Sutras* also indicate an alternative path to achieve this state. This is the path of profound meditation upon Ishwara or surrender to him. The more intense the surrender to Ishwara, the closer one comes to restraint of the mental processes. Several commentators have translated Ishwara as 'God' or 'Lord'.¹⁰ But our readers have had occasion to meet Ishwara in intimate detail and, in the process, to realise that such translations are erroneous. Patanjali states that Ishwara is the particular kind of Purusha which is unaffected by the vehicles of affliction (*Kleshas*), by their consequences (*Vipakas*) and by their accumulation (*Ashaya*). As mentioned earlier, the mental processes are five-fold, both with and without afflictions. The habitual residues of actions (*Vasanas*) are the vehicles, which have the attributes of affliction, action and accumulation.

At this point we enter a more subtle level of perception and practice. This is the level of deep personal experience,

flowing from the recognition that perfect knowledge is eternal. The seer-scientists of the *Vedas* discovered that the relationship between word and meaning is eternal and, therefore, that it is possible to reach and grasp the meaning through the route of the word.

Vedic seers have indicated to us the path of realising and reaching Ishwara by the use of the symbol Om. This symbol is composed of the sounds A-u-m (ॐ) and pronounced as one syllable. *Pranava* is the proper noun for this symbol. This single-syllable symbol is indicative of Ishwara, and is related to him as the lamp is to the light. In other words, Ishwara is inherent in Om, which is given below:



The Yogi knows the relationship between Ishwara and Om, and knows that the repetition of Om will ultimately reveal Ishwara. Thus, the Yogi who repeats the *Pranava* and reveals its Truth achieves one-pointedness of mind. Yoga is developed by study, and study is confirmed by Yoga. The highest Self is revealed by the combined power of study and Yoga, whereby all impediments cease to exist in the profound meditative state upon Ishwara, and the Yogi realises his or her own real self.

IMPEDIMENTS AND MENTAL DISTRACTIONS¹¹

The mental distractions which cause impediments on the path of Yoga are 1. Disease (*Vyadhi*), 2. Debility or apathy (*Styana*), 3. Doubt or indecision (*Samshaya*), 4. Inadvertence or negligence (*Pramada*), 5. Sloth or indolence (*Alasya*), 6. Sensuality or non-cessation

(*Avirati*), 7. Wrong understanding or erratic perception (*Bhrantidarshana*), 8. Non-attainment of the plane or lack of initiative (*Alabdhabhumikatva*), and 9. Instability or inconstancy (*Anavasthitatva*). These nine impediments arise as a result of mental activity and cannot arise in its absence. Patanjali explains each of these distractions in the *Yoga Sutras*. Numerous commentaries to these *Sutras* have been written, and scholars often differ over the connotation of a particular word.¹²

For our purposes it is not necessary to go into those debates. In brief, disease (*Vyadhi*) is the imbalance and inequality of the humours, the constituent fluids and the sense organs. Debility (*Styana*) is an inertness of the mind, an apathy or inability to take action. The third cause is indecision or doubt and the fourth is negligence (*Pramada*), which is the disposition to non-performance or the absence of effort with regard to the means which lead to Samadhi. Doubt (*Samshaya*) arises from confusion and uncertainty, while inadvertence is lack of investigation, the inertia produced by heaviness of the body and mind. This inadvertence causes a lack of mental application and non-performance of the means which lead to the goal. Sloth is the absence of exertion of the mind and body.

Patanjali used the term *Avirati* to connote the cause of sensuality, which has also been described as the greed of the mind, the essence of which is contact with sense objects; it also conveys the mind's desire for the acquisition of objects. Some commentators have explained it as 'non-cessation' of mental and physical activity, the constant and continuous flux of ideas and of sensations experienced through the senses, and also of emotions. Wrong understanding (*Bhrantidarshana*) is faulty knowledge or erratic perception. Non-attainment (*Alabdhabhumikatva*) is the failure to attain

the plane of spiritual absorption; this signifies not attaining a certain level of concentration in the mind and indicates a state in which a person is unable to establish a base in anything, or to hold on to anything. Lack of initiative is understood in this sense. Instability (Anavasthitatva) is the absence of the firm establishment of the mind on the attained plane. The previous obstacle — non-attainment — hinders us from taking a position in something, while this obstacle hinders us from maintaining ourselves in it.

All these expressions signify the weaknesses of human nature which hinder the realisation of Yogic practices. These mental impediments are known as the nine impurities in Yoga. Distraction is accompanied by pain, dejection, unsteadiness of the limbs and of inspiration (the inhaled breath) and expiration (the exhaled breath). There are three types of breathing: 1. The more or less regular, normal breathing which occurs in the ordinary living conditions of every individual; 2. The agitated, irregular breathing which generally accompanies the emotional states of excitement, depression or disease. (These two types of breathing qualify as 'spontaneous'.) Then there is 3. The Pranayamic breathing, ie. the breathing ruled by Pranayama or the conscious control of the breath, designed to introduce a determined rhythm and to regulate the volume of air inspired.

It should be clearly understood that spiritual absorption is not a mere matter of breath control. The practice of controlling the breath may be a preliminary step on the path to controlling the mind, but is not in itself spiritual absorption. The companions of the distracted state of mind, which are absent from the spiritually absorbed, non-distracted, transparent and steady mind, are pain and dejection. Pain is the injury to or suffering of the body and mind caused by other creatures or by natural or supernatural powers. Dejection

is the disturbance of mind arising from the non-fulfilment of desire, in which state the limbs are shaky and unstable.

Distractions are to be restrained by the two methods of practice and non-attachment, and the importance of developing a single-pointed mind cannot be over-emphasised. This one-pointed mind facilitates a state of clarity in which we may experience friendship, compassion, joy and neutrality regarding pleasure and pain, virtue and vice. The Yogi is enjoined to cultivate the feeling of friendship towards all living beings, compassion towards those who are suffering, joy towards the virtuous and neutrality towards the vicious.¹³ "The yogi, who develops in him these sentiments, shall obtain serenity of mind, one of the forms of stability." "Persons who have developed in themselves these sentiments shall see themselves free from the violent disturbances of the mind; they shall not react vehemently to improper conduct, they shall exist at the level of sentiments expressed on a low key. They shall adopt an attitude which is affable, mildly compassionate, smiling, or, in many cases, indifferent to the people around him (specially their negative traits)..... The sentiments recommended here have to be maintained on a low key so that they do not unbalance the yogi and, at the same time bind him, or compromise him emotionally with the situations in which he finds himself."¹⁴

As an optional measure, the Yogi is advised to achieve steadiness of mind by the method of breath control (Pranayama).¹⁵ Pranayamic breathing depends on the will of the Yogi and refers to the volume of air absorbed, the number of inspirations (Pooraka) and expirations (Rechaka) per unit of time, the duration of the inspirations and expirations and the duration of the breath retention. Naturally, once the desired control is attained, the regulated breathing becomes automatic, as happens with all Yogic practices.

Pranayamic breathing is rhythmic, that is, the volume of air absorbed and the duration of each stage of breathing are the same for as long as the Yogi wishes. The Yogi can slow the rhythm of his or her breathing and progressively reduce the volume of air absorbed to extreme limits. It must be emphasised here that Pranayama is the result of intense and sustained practice. Because there are dangers in the erroneous practice of Pranayama, it must be only be engaged in under the direct supervision and control of a competent preceptor or instructor.

The breathing processes precede the activities of the senses and the mind and thus there exists an interdependence between the mind and breathing. The relation — one can even say the rigorous correspondence — between the mental and breathing activities is one of the fundamental postulates of the psycho-physiology of Yoga. By blocking the activity of the senses and the flux of ideas, Pranayama gives the mind the power of concentration.

Concentrating the mind during Pranayama upon various parts of the body, such as the front part of the nose, the front of the tongue and the root of the tongue enhances the faculties of smell, taste and hearing respectively. These manifestations strengthen steadiness, destroy doubts and sustain and support a high level of absorption.

The importance of personal experience is crucial in these practices, as Patanjali emphasises in the *Yoga Sūtras*. A practitioner may now experience the vision of Yoga-light that lies beyond the gross manifestations of mental activity. Yoga is based on the Truth; but whatever may be learned through the science of Yoga, through inference and the explanations provided by the teachers, remains hazy until the practitioner realises the Truth through his or her own mind and senses.

In order to confirm the lessons of the science of Yoga,

some distinguishing qualities must be experienced. The mind is able to observe these truths directly when full control over unrestrained mental activities is achieved. The practitioner realises unobstructed intellectual vision, accompanied by the appearance of the painless and luminous state. A centre of consciousness called 'the lotus of the heart' is located between the abdomen and the thorax and can be revealed in deep meditation. It shines with an inner light, and those who see it are filled with an extraordinary sense of peace and joy.

The mind becomes calm and infinite like the still ocean. The Yogi recognises fully the simple, atomic self and understands completely its manifestation as 'I am all'. The Yogi's mind becomes so steady that (s)he acquires mastery over the knowledge of dreams and of sleep, and at this point is advised to meditate upon a subject of choice. The mind which is steady in meditation becomes able to attain steadiness at other times also. Entering into the subtle realm of experience, the mind attains a stable insight into the tiniest divisions of matter, and when this stage is reached all dependence on methods of training the mind ceases. The mind of the Yogi whose mental activities have been destroyed becomes like a priceless crystal.

KARMA YOGA

The Yoga of Action (Karma Yoga) is also explained in Patanjali's *Yoga Sutras*. This form of Yoga begins with the dissipation of impurities, in terms of residual actions and afflictions caused by the activity of the sense organs and objects. Karma Yoga must be performed with the aim of producing spiritual absorption and the intention of minimising our afflictions. These afflictions become as unproductive as parched seeds in barren soil. When they

have been utterly destroyed they never again affect the subtle intellectual vision.

The afflictions signify the five perverse cognitions and are intimately related to the cycle of cause and effect, resulting in the fruition of actions. As we know, even wise beings are in the grip of the sentiment of clinging to life. The eternal self-benediction of all living beings is, "May I not cease to exist. May I continue to live." Even though we have no experience of death, the fear of it is potent even in the newly-born insect. This affliction exists equally in the extremely ignorant and the wise. It has been said that this fear arises from the residual memory of the pain of death experienced in previous births. As long as afflictions exist, the vehicle of action and reaction rolls on. But it can be halted forever when the root of afflictions has been destroyed.

Ignorance is the breeding ground of egoism and it creates all other obstacles. These obstacles may exist either in potential or vestigial form, or they may have been temporarily overcome or fully developed. In a state of dormancy afflictions are located in the mind, where they are poised to become active. However, meditation causes them to dry up and wither so that they are no longer awakened even in the face of an exciting trigger. The Yogi gradually attains a stage at which the germinative power of afflictions has been destroyed and existing afflictions are greatly weakened.

It is a symptom of the ignorant state of mind to think that phenomena are solid and permanent. A result of this mistaken view is that beings engage in what appear to be pleasurable actions but which actually give rise to painful effects. This process is stimulated and maintained by reactions to desire arising from the interaction of sense organs and sense objects. Attachment follows the experience of pleasure and is a thirst or greed for further pleasure. It acts upon memories

of previous enjoyment and seeks to repeat the experience. Aversion, on the other hand, follows the experience of pain and seeks to prevent its recurrence. Aversion includes resistance, sorrow, destructive intent and anger at pain or at the means thereof; it is preceded by memory of previous pain.

Feelings of pleasure, attachment, aversion and hostility are dependent upon the conscious, internal sphere of the mind and the unconscious, external sphere of the body. The science of Yoga teaches us how to avoid the future potential for pain (because nothing can be done about pain that has already been experienced). Yoga contains the clear message that experience and emancipation are brought about by sharpening the faculty of the intellect. This enables us to develop the power of recognising and retaining Truth and eliminating illusion. This is achieved by a series of measures outlined under the following eight headings, which are the component parts of Yoga: restraint (*Yama*), observance of rules (*Niyama*), regular practice of some carefully developed postures (*Asana*), breath control (*Pranayama*), abstraction (*Pratyahara*), concentration (*Dharana*), meditation (*Dhyana*) and spiritual absorption (*Samadhi*).

The category of restraint includes a wide range of values to be integrated into our lives, such as a commitment against oppression which is to be practised towards all living beings by all means and at all times. Truthful speech and honesty of mind should accompany this. Truthful speech is neither deceptive nor mistaken, nor barren of observation; it should be employed for the good of all living beings and not for their harm. The value system of Yoga includes the rejection of covetousness and a refusal to accept things from others which are against the law or established practices; the exercise of full control over sexual impulses; and the development of an attitude of non-accumulation.

These restraints are universal and are not confined to any social status, place, time or circumstance. They are the great commitments or pledges applicable to all, although exceptions are allowed in certain situations. For example, fishermen should inflict injury on fish alone, and soldiers should inflict injury on the battlefield alone.

Yoga also recommends that the practitioner should expel impurities, engage in deep study, observe austerities and cherish contentment as a goal. Observing austerities means tolerating the opposites of hunger and thirst, heat and cold, standing and sitting, verbal silence and gesture silence. Contentment is the absence of the desire to procure more than our current level of possessions. In attempting to carry out these practices, opposition will naturally arise in the mind because of our entrenched habits; so it is necessary to cultivate positive intentions and new, constructive thoughts in order to retrain our body, mind and intellect.

Postures (Asanas) should be steady (*Sthira*) and comfortable (*Sukha*), with the aim of gradually perfecting the postures so that they become effortless. As the practitioner matures in the Asanas, (s)he is no longer overpowered by thirst and hunger or heat and cold. The complementary training in Pranayama or breath control enables the breath gradually to become subtle and long. Its external, internal and confining operations are controlled. The external activity is the cessation of movement after expiration, and the internal is the cessation of movement after inspiration. The confined activity is where the cessation of both takes place by a single effort.

Yogis who practise breath control achieve a state in which the actions which obstruct intellectual knowledge — which are like clouds covering the sun — are destroyed. No other austerity is higher than breath control, in which the

stain of impurities is banished and the radiance of knowledge becomes manifest. Thus, the mind's full capacity for concentration is secured by the practice of breath control, and the highest subjugation of the senses is achieved.

CONCENTRATION: THE KEY TO RETRAINING THE MIND

Concentration is the first step on the path towards achieving spiritual absorption. The practice of concentration is to hold the mind within a centre of consciousness in the body, or fix it on some form either within the body or outside it. The concentrated mind is confined to a location such as the navel sphere, the head, the front of the nose, the lotus at the heart, the front of the tongue or an external object. At that location, or in that space, the object of meditation is cognised, and this cognition is maintained in a steady flow of uninterrupted mind moments. This is meditation, an unbroken flow of thought toward the object of concentration, a method of apprehending the infinite.

The finite mind of a human being can form an accurate conception of the infinite by no other means than meditation. Spiritual absorption is the state in which the form manifests as if devoid of its cognitional character. When the true nature of the object shines forth in meditation, undistorted by the mind of the perceiver, that is spiritual absorption. In contrast, ordinary sense perception is distorted and coloured by our imagination. We decide in advance what we think we are going to see and this preoccupation interferes with our vision. It is only in the state of spiritual absorption that we see an object in the truth of its own nature, absolutely free from the distortions of our imagination.

Samyama is the union of concentration (*Dharana*), meditation (*Dhyana*) and spiritual absorption (*Samadhi*), in

which the intellective vision appears. Thus, when concentration, meditation and absorption are brought to bear upon one subject, they are called Samyama. Through the mastery of Samyama comes the light of knowledge, which must be applied in stages.

In the process of retraining our body, mind and intellect, changes take place in our mind through the dissolution of our exhibitiv habits and the evolution of inhibitive habits. Exhibitiv habits are the ingrained characteristics of the mind; substituting them with counter-habits can only destroy them. Intellective habits flow from intellective vision, which emanates from spheres other than those of the verbal and inferential cognitions. The habitual potency born from inhibitive habits battles with the exhibitiv habitual potencies and eliminates or replaces them. Ever newer intellective habits arise in a Yogi, and these destroy the vehicles of exhibitiv habitual potencies.

Intellective vision arises by restraint and absorption in Samadhi. As the practice continues, newer inhibitive habits are formed. Afflictions are destroyed and the mind is freed. An alteration of the habits of mind with every moment is the inhibitive change. The flow of tranquillity comes to the mind from inhibitive habits. In the event of any deficiency of these habits, it is overpowered by exhibitiv habits. This variation reflects the difference between all-pointedness and one-pointedness. One-pointedness of the mind occurs when the contents of the mind that rise and fall at two different moments are exactly the same.

Yoga alone reveals the successive stages of Samyama to the practitioner. Yoga as spiritual absorption is the union of concentration, meditation and absorption. By this process the mind and senses are purified and the whole organism is strengthened, in order that it may be able to undergo the tremendous experiences which await it.

These experiences are generally described as Siddhis. While the word Siddhi is usually taken to mean 'power', it actually refers to the accomplishments of an advanced Yogi. It is of paramount importance that the student-seeker understands that Yogic accomplishments are not, and should not be considered a goal in themselves. They are by-products of the steep journey or struggle towards Self-realisation. There is often a fascination on the part of the beginner with Yogic powers and accomplishments. But this is replaced in time with the understanding that these inevitable accomplishments are but distractions and temptations to the sincere Yogi. The *Yoga Sutras* refer to such accomplishments as the knowledge of the past and the future achieved by practising Samyama on the form.¹⁶

Sound, meaning and corresponding ideas are usually confused together in the mind. But when Samyama is performed on the sounds, their meaning and ideas, then comprehension of the sound of all living beings dawns on the listener.¹⁷ By performing Samyama on another's mind, his or her mental images are known.¹⁸ Patanjali identifies the accomplishments which ensue from Samyama performed on one's physical body, on qualities like friendliness, on the strengths of various animals, on light, the sun, the moon, the pole-star, the navel centre, the hollow of the throat, the nerve centres and the heart.

However, Patanjali makes it clear that all these accomplishments, or Siddhis, are but temptations and distractions, which appear attractive only to those steeped in worldliness, egoism and the desire for power.

1 Fernando Tola, and Carmen Dragonetti, *The Yogasutras of Patanjali: On Concentration of Mind* (trans. K D Prithpal), p. 149.

2 The basic texts of Raja Yoga are as follows: the *Yoga Sutras* of Patanjali,

- 1 Fernando Tola, and Carmen Dragonetti, *The Yogasutras of Patanjali: On Concentration of Mind* (trans. K D Prithpal), p. 149.
- 2 The basic texts of Raja Yoga are as follows: the *Yoga Sutras* of Patanjali, which are aphorisms authored by Patanjali to explain the philosophy of Yoga; the *Yoga-bhashya* of Veda Vyasa, the renowned Rishi who composed the *Mahabharata* and compiled the *Veda Mantras*; and the *Tattvaisaradi* of Vacaspati Misra, a well-known 10th-century Sanskrit grammarian and philosopher. Reference will be made in this work to these three texts. Hatha Yoga is the Yoga formulated by the famous Yogin Goraksanatha.
- 3 Tola and Dragonetti, *ibid*, p. 3.
- 4 Other translations: suppression (H. Aranya), inhibition (Taimni), restriction (Woods), hindering (Ballantyne), controlling (Purohit).
- 5 According to the Samkhya, Prakriti is the origin of the totality of the sensory material reality, a part of which is the mind. In opposition to Prakriti stands Purusha. Prakriti and Purusha are polarised. Prakriti is devoid of consciousness, while Purusha is conscious. Prakriti is the first cause, Purusha is neither cause nor effect. Prakriti is active, Purusha is inactive. Prakriti is constantly changing, Purusha is immutable. Prakriti is the object of knowledge, Purusha is the subject of knowledge. Purusha embodied in an individual comes in contact with the external material world by means of the mind and its functions and processes. Embodied in the Yogi as the practitioner of Yoga — as indeed in everyone — is Purusha. Since there are no equivalents in the English language for these terms, we have chosen to use the original Sanskrit. Bangali Baba, an ascetic and outstanding commentator on the *Yoga Sutras*, has used the term 'Pure Con-science' for Purusha, 'Con-Science' for Chitih (a state of Chitta), 'Consciousness' for *Chaitanya* and 'Conscious' for *Chetana*. These terms appear too contrived, and therefore we have opted to retain the original Sanskrit. It is hoped that readers will be able to grasp the nuances as they proceed in the text.
- 6 *Sattvaguna* is the best kind of energy which begets knowledge and bliss, while Rajas, as the motor energy, begets all kinds of movement and activity, and Tamas is inertia or inert energy which veils, binds and limits everything.
- 7 Dinesh Chandra Bhattacharya, *Yoga Psychology of Patanjali*, p.15.
- 8 Tola and Dragonetti, *ibid*, p. 34.
- 9 *ibid*, p. 72.
- 10 Having translated Ishwara as 'Lord', Tola and Dragonetti assert that "the presence of the concept of a God in Patanjali's system, which transforms it into a theistic system, marks it as being different from

- misunderstanding of Ishwara and other concepts in the *Vedas* and their auxiliary literature.
- 11 *vyadhi styan samshaya pramda alasya avirati, bhrantidarshanalbdhabhoomikatuwanawasthitatwanichittavikshepasteantarayah* — Patanjali's *Yoga Sutras*, 1:30.
 - 12 For example, Tola and Dragonetti translate these nine impediments as "sickness, apathy, indecision, negligence, idleness, non-cessation, erratic perception, the absence of initiative and inconstance" (p. 104).
 - 13 Bangali Baba, *Yogasutra*, p. 18.
 - 14 Tola and Dragonetti, *ibid*, p. 124.
 - 15 *Parinamatrayasamyamadateetaanaagatjnanam* — Patanjali's *Yoga Sutras*, 3:16.
 - 16 *Shabdārtha pratyānamitaretarādhyasankarast pravibhagsamyatsarvabhootrutajnanam* — *ibid*, 3:17.
 - 17 *pratyayasya parāchittajnanam* — *ibid*, 3:19.
 - 18 *Te samadhavupsarga vyuthane siddhayah* — *ibid* (Bangali Baba edition), 3:36.



*upasthaste anameewa ayakshma
asmabhyam santu prithwee prasootah
deergham na ayuh pratibudhyamana
vayam tubhyam balihritah syam*

O Mother Earth,
Let thy bosom be free
From sickness and decay.
May we through long life
Be active and vigilant
And serve thee with devotion.

ATHARVA VEDA 12:1:62

*tachchakshurdavahitam
shukramuchcharat
pashyema sharadah shatam
jeevema sharadah shatam*

The sun is the eye of the universe.
It rises with bright sunshine.
May we live to see it
For a hundred autumns.

RIK VEDA 7:66:16



CHAPTER FIFTEEN

Ayurveda: The Science of Health and Longevity



SINCE THE SEER-SCIENTISTS REGARDED EACH human being as an integrated whole of body, mind, intellect and Atma, it was a logical next step for them to develop sciences to cover each of these aspects in their interrelationships. Unfortunately, Western scholars chose to interpret this as an exclusive preoccupation with 'spiritual' matters and a concomitant indifference towards the material aspects of life. This is amply evident in the following entry in the *Encyclopaedia Britannica*: "Indian thought, however, was primarily philosophical and otherworldly and was concerned more with escaping this world than with understanding it." Indians themselves have tended to accept this view, and have made strenuous efforts over the centuries to cast themselves in this mould. But the truth is otherwise.

The *Vedas* and their allied branches paid detailed attention to every facet of a human being. The importance they gave to the human body is demonstrated eloquently in the system of health care and healing which has evolved from these great texts. The comprehensive health care system in the *Vedas* has been described as "religious healing" by Western 'experts', many of whose studies focus on discovering magic and demons in these texts. This false understanding is seen elsewhere, in similar misinterpretations of other parts of Vedic literature. We shall now discuss the philosophy and history of Ayurveda

in some detail, in order to remove from the reader's mind the view reflected by the above-quoted entry in the *Encyclopedia Britannica*.

There is historical evidence of Ayurveda in the *Vedas*, notably in the *Rig Veda* and the *Atharva Veda*; in the latter, 114 hymns or verses are devoted to medical matters. Ayurveda as a science of life, with its prevention of disease and promotion of longevity, is, therefore, the oldest and most wholistic or comprehensive medical system known to us today.

The sage-physicians/surgeons of the time were the same seer-scientists who were engaged in 'receiving' and communicating knowledge of the realities of creation and the cosmos in its other, subtler aspects. They regarded physical health as part of an integrated life and 'received' the knowledge of Ayurveda through direct cognition during meditation. The famous sage Vyasa set down in writing the complete knowledge of Ayurveda, along with his insights in relation to ethics, virtue and self-realisation.

Ayurveda was later systematised into its own compact system of health and was considered an auxiliary branch of the *Vedas*, called an *Upaveda* ('limb of the *Vedas*'). Passages related to Ayurveda were taken from the various *Vedas* and made into separate works dealing exclusively with aspects of health.

Around 1500 BC, Ayurveda was delineated into eight specific branches of medicine. There were two main schools of Ayurveda at that time — *Atreya*, the school of physicians, and *Dhanvantari*, the school of surgeons. These two schools rendered Ayurveda into a more scientifically verifiable and classifiable medical system. Their research and experimentation enabled them to dispel the doubts of even the most sceptical of their peers, and people came from numerous countries to Indian Ayurvedic schools.

The literal definition of Ayurveda is 'the science of life

or longevity'. It proceeds from the premise that we are all part of nature. Just as animals and plants live in harmony with nature and in accordance with her laws — and in so doing create and sustain a balanced state of health within their beings — so are we a product of these very same principles. It is fair to say that Ayurveda is a system which helps us to maintain our health by using the inherent principles of nature to bring us back into equilibrium with our true self.

The two principal re-classifiers of Ayurveda were the sage-physicians Charaka and Sushruta, and their works are extant. A third major treatise on Ayurveda, the *Ashtanga Hridaya*, is a concise version of their combined works. The three principal and ancient Ayurvedic texts currently in use are known as the *Charaka Samhita* (Samhita means 'compilation'), the *Sushruta Samhita* and the *Ashtangha Hridaya Samhita*.

Charaka represented the Atreya school of physicians, discussing physiology, anatomy, aetiology, pathogenesis, symptoms and signs of disease; methodology of diagnosis; treatment of and prescription for patients; prevention of disease and promotion of longevity. He studied both the internal and external causes of illness, and included a whole section in his writings on the medicinal aspects of herbs, diet, and the reversal of the aging process. Honoured as Maharshi ('great seer-scientist'), Charaka gathered relevant verses from the *Agnivesha Samhita*, Agnivesha's pioneering work, and re-edited them into his *Charaka Samhita*. Agnivesha himself was a disciple of the seer-scientist Atreya.

1 Charaka's text organises the science of life and health care into 10 sections, as follows:

1. *Shareer* — the body: a combination of five gross elements of matter and their products (anatomy and physiology).
2. *Vritti* — food, which can be described as edible, potable, likeable and chewable, etc.; the effects of good and bad

- food; a balanced diet (dietetics).
3. *Hetu* — the causes of disease, their effects and methods of prevention (aetiology and pathology).
 4. *Vyadhi* — diseases, their manifestations, signs and symptoms (symptomatology).
 5. *Karma* — therapeutics.
 6. *Karya* — maintenance of health.
 7. *Kala* — the relationship between diseases and the time factor (*Kala*); diseases caused by the age factor, such as childhood, youth, old age; daily and seasonal routines.
 8. *Karta* — relating to the physician, his duties, rules and regulations; the ethics binding him; the guidelines of his profession (medical ethics).
 9. *Karana* — the good and bad properties of medicines; regulations for their use, etc. (drugs or medicines).
 10. *Vidhivinischaya* — pharmacy and pharmacology.

Charaka Samhita is divided into eight principal portions called *Sthanas*, or stations, and each of these contains a certain number of chapters. In all, there are 120 chapters and a total of 12,000 verses. The eight *Sthanas* which form the structural arrangement of the book are as follows:

1. *Sutra Sthana* — the fundamental principles of Ayurveda.
2. *Nidana Sthana* — diagnosis of disease.
3. *Vimana Sthana* — measuring aetiological and pathological factors.
4. *Shareer Sthana* — anatomy and physiology.
5. *Indriya Sthana* — specific signs and symptoms, called *Arista*, indicative of lifespan and fatality of disease, or degree of fatality of disease.
6. *Chikitsa Sthana* — treatment.
7. *Kalpa Sthana* — specific combinations and preparations.
8. *Sidhi Sthana* — successful therapeutics.

The other remarkable Ayurvedic re-classifier, Sushruta, came from the Dhanvantari school of surgeons. In his text, the *Sushruta Samhita*, we find a complete explanation of human anatomy — the bones, joints, nerves, heart, blood vessels, circulatory system and so forth. In addition, he engages in a detailed and sophisticated discussion of surgical equipment; the classification of abscesses, burns, fractures, wounds, amputation, plastic surgery, and ano-rectal surgery. His work has a structurally symmetrical arrangement similar to the *Charaka Samhita*, and comprises 120 chapters and 66 appendices.

The *Asthanga Hridaya*, mentioned above as the third classical work on Ayurveda and composed by Vagbhata, consists of 120 chapters.

The term 'Ayurveda' is composed of two Sanskrit words: *Ayu*, meaning 'life', and 'Veda', meaning 'knowledge'. To know about life, therefore, is the science of Ayurveda. Ayurveda is based on 'true' knowledge. In Sanskrit, both *Ritam* and *Satya* indicate 'truth', but there is a subtle yet significant difference between them. *Ritam* means pure, absolute, eternal truth, something which is always the truth; whereas *Satya* means relative truth, something which may change in relation to time and place.

As we know, the principles of modern medicine are constantly changing. A medicine that is considered beneficial for a certain disease at one time may later be recognised as harmful when its side effects are discovered. The 'truth' of modern medicine, therefore, is *Satya*; whereas Ayurveda, being based on knowledge from the *Vedas*, is *Ritam* knowledge, valid in the same way and by the same methods today as it was at its inception.

According to Charaka, *Ayu* is comprised of four essential parts: the combination of mind, body, senses and

the soul. Ayurveda reminds us that we tend to identify most closely with our physical bodies; yet, in actuality, there is more to us than this. We can see that underlying our physical structure are the mind and intellect, which not only control our thought processes but also assist us in carrying out our daily physical processes such as respiration, circulation, digestion and elimination.

The mind, intellect and body work in conjunction to regulate our physiology. We must use our senses as information gatherers in order for our mind to act appropriately to assist our physical body. We can think of the mind as a computer, and the senses as the data entered into it. For instance, smell and taste are two important senses which help the digestive process. When our mind registers that a particular food is entering the gastrointestinal tract, it directs our body to act accordingly by releasing various digestive enzymes. It is clear from this that maintaining the clarity of our senses is an essential part of mind and body integrating their functions and helping to keep us healthy and happy.

Ayurveda also recognises that we exist in a more subtle form before our physical form develops with the help of the mind and the senses. As we have discussed earlier, the seers-scientists of India identified the supraphysical energies which precede the formation of the physical entity. They also hypothesised that we may indeed occupy many physical bodies throughout the course of time, but that our underlying self remains unchanged. Death itself helps to illustrate this concept. When an individual comes close to death, many desires cease. As the Jeeva no longer identifies with the body, the desire to eat food or indulge in a particular activity — even one that used to be a great source of satisfaction for that person — falls away.

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AYURVEDA AND THE COSMOS

Ayurveda has evolved from an understanding of the evolution of the cosmos. In its very broad contours, the principle of evolution according to Ayurveda can be summed up as follows: in the beginning there was only *Avyakta*, the unmanifest supraphysical principle which encompassed the three aspects of Sattva, Rajas and Tamas. *Avyakta* is eternal and the cause of all manifest creation. When it starts to manifest, *Mahat* (the intellect) is born. *Mahat* also possesses the same three qualities, and *Ahamkara* (the ego) arises from it. *Ahamkara* is also of three types known as *Vaïkarika*, *Taijas* and *Bhutadi*. From *Vaïkarika* and *Taijas Ahamkara*, 11 organs — five sensory, five motor and the mind — are produced. The sense organs (*Jnana Indriya*) are the ears, skin, eyes, tongue and nose. The motor organs (*Karma Indriya*) are the larynx, hands, feet, genitals and anus. Mind is described as a 'mixed organ'. Five *Tanmatras*² arise from *Bhutadi* and *Taijas Ahamkara*, and these are *Shabda* (sound), *Sparsha* (touch), *Rupa* (sight or vision), *Rasa* (taste) and *Gandha* (smell). Five *Mahabhootas* (gross elements or fundamental factors) originate from these *Tanmatras*, which are *Akasha* (space), *Wayu* (air), *Teja* (fire), *Apa* (water) and *Prithwi* (earth).

These 24 principles are collectively known as *Purusha* in Ayurveda:

24 Tattwas:

1. *Avyakta* (unmanifest)
2. *Mahat* (intellect)
3. *Ahamkara* (3 types — Sattva + Rajas + Tamas) (ego)
4. 11 *Indriyas* (senses) $3 + 11 = 14$
5. 5 *Tanmatras* $14 + 5 = 19$
6. 5 *Mahabhootas* $19 + 5 = 24$

Thus we can see that the entire science of Ayurveda evolves from the basic premise that everything in this universe is composed of the three *Gunas* of Sattva, Rajas and Tamas and of the five gross elements.

THE DOSHAS

Since Ayurveda is a wholistic system of medicine, its aim is to provide guidance regarding food and lifestyle. This helps healthy people to remain healthy and improves the health of those who are unwell. Its recommendations vary according to the individual, and all of its advice is validated by observation, enquiry, direct examination and knowledge derived from the ancient texts. Ayurveda is based on the understanding that energetic forces influence the entire natural world, including human beings. These forces are called the *Tridoshas*.

The Ayurvedic concept of the Tridoshas is unique to medical science. It asserts that the body is composed of tissues (*Dhatus*), waste products (*Malas*) and Doshas (loosely translated as 'energetic forces'). It is the Tridoshas' job to assist with the creation of all tissues of the body, and to remove any unnecessary waste products from the body. They also influence movement, transformation, sensory function and many other activities of the human body and mind.

Ayurveda regards a person as a unique individual made up of five primary elements — space, air, fire, water and earth. We share these primary elements with the natural world around us, which impact upon us when they are present in our environment. The foods we eat and the climate in which we live are just two examples of the presence of these elements. While we are a composite of these five primary elements, certain ones have the ability to combine in order to create various physiological functions. For example, space and air combine to form what is known in Ayurveda as the *Vata Dosha*.

VATA

The Vata Dosha is the most important of the three Doshas, for two reasons. Firstly, an imbalance of Vata can also cause an imbalance in the other two Doshas, *Pitta* and *Kapha*. Secondly, Vata is the main driver or mover of the body, including the other two Doshas, all the tissues and the waste products. It governs the principle of movement and is the force which directs nerve impulses, circulation, respiration and elimination.

PITTA

The *Pitta Dosha* is associated with fire or heat, and is involved with any process of transformation that occurs in the body. Fire and water are the elements which combine to form the Pitta Dosha. The transformation of foods into nutrients which our bodies can assimilate is an example of a Pitta function. Pitta is also responsible for metabolism in the organ and tissue systems, as well as for cellular metabolism.

KAPHA

Kapha is the heaviest of the three Doshas, providing the body's structures and lubrication. These qualities help to counterbalance Vata's movement and Pitta's metabolism. The water and earth elements principally combine to form the *Kapha Dosha*, which is responsible for growth, adding structure unit by unit, and for protection. The cerebro-spinal fluid which protects the brain and spinal column is a type of Kapha found in the body, while another example is the mucosal lining of the stomach.

We are all made up of unique proportions of Vata, Pitta and Kapha, as a result of which Ayurveda acknowledges that each of us must be treated as a unique individual, despite the similarity of our anatomy and physiological functions. If one of the Doshas accumulates in our system, the

Ayurvedic practitioner will suggest specific lifestyle and nutritional guidelines to assist us in reducing the excessive level of that Dosha. Ayurvedic practitioners, known as *Vaidyas*, may also suggest certain herbal supplements to hasten the healing process.

We can often significantly influence our physical, mental and emotional health by changing our nutritional protocol and lifestyle. For example, if someone is having difficulty remembering things or sleeping well at night, this may be the result of an over-active mind or too much stress. In such a case, the Vaidya will recommend more regularity in activities such as meal-times and bed-times, and perhaps a warm oil massage before bathing. Setting aside leisure time is also prescribed. A regimen such as this represents a Vata pacifying programme.

Digestive disorders are most commonly caused by eating foods which do not support us, such as fermented, heavy or excessively rich foods, and/or foods which are too spicy, sour or salty. The Ayurvedic healer will recommend that the sufferer eats lighter, more easily digestible foods and avoids processed foods and ice-cold beverages, in order to resolve many of his or her digestive problems. This is part of a Pitta pacifying programme for the relief of the digestive system.

Over-stimulation can result in the depletion of energy levels (known as "burn-out" in the West). The Ayurvedic treatment for this includes increasing the sufferer's hours of sleep, and bringing more regularity to the diet and lifestyle in order to restore energy levels. Practices which calm the mind are also extremely beneficial for this condition, and include spending a few minutes each day sitting quietly and taking long, full, deep breaths. This is an example of a Vata pacifying programme. The Ayurvedic practitioner may well add a recommendation to suggest that the sufferer should avoid

excessive caffeine and alcohol and should have more fun!

Skin problems are usually a result of excessively oily skin and too much heat in the body. Deep-fried or overly spicy foods can cause eruptions in the skin, and inadequate precautions against the intense rays of the sun can be an extra aggravant. Certain harsh, abrasive chemicals and synthetic fibres also affect the skin adversely. The Ayurvedic recommendations for a troubled skin are to wear natural fabrics like cotton, wool and silk, to protect oneself from exposure to toxic chemicals wherever possible and to eat certain foods, such as white rice, watermelon and coriander, which are known to alleviate many skin problems. If the opposite problem occurs, of an extremely dry and flaky skin, Ayurveda recommends a warm oil massage a few times each week to restore the texture of the skin. Most skin problems, however, are a result of an imbalance in the Pitta Dosha.

These examples indicate how we can learn to balance the Tridoshas, and thus prevent many diseases from taking hold of us, as well as slowing down or reversing the current disease process. When the Tridoshas are balanced, the individual experiences health on all levels: mental, physical and spiritual. This is much more, of course, than the mere absence of disease.

THE EIGHT BRANCHES OF MEDICINE

In ancient India, students of Ayurveda could major in one of eight branches of medicine as follows:

1. Internal Medicine (*Kayachikitsa*). This is related to the intellect, mind and body, which are recognised as having a psychosomatic relationship so that the mind can cause illness in the body and vice versa. It identifies the interrelationship of these facets by its understanding of the 'inner self' (Atma) which regulates their respective functions. Seven physical and seven mental constitutions are identified, and the primary goal

of Ayurveda at the outset is to determine the cause of the illness.

Six stages of the development of disease are identified in Ayurveda: aggravation, accumulation, overflow, relocation, formation in a new site and manifestation as a recognisable disease. Some specialists maintain that modern technical equipment and diagnosis can only detect a disease during the fifth and sixth of these stages.

Health in Ayurveda is seen as a balance of the biological humours, and disease as an imbalance. Ayurveda brings balance by fostering the deficient humours and reducing the excessive ones. Surgery is a last resort. There are more than 2000 medicinal plants classified in India's *Materia Medica*, together with a unique method of completely removing toxins from the body known as *Pancha Karma* (Five Actions). This method reverses the disease path from its manifestation stage into the bloodstream. The toxins are then expelled from the body by *Vamana* (use of emetics), *Virechana* (use of purgatives), *Bastee* (medicinal enemetas), *Nasya* (nasal administrations) and *Rakta Mokshana* (blood-letting). *Poorva Karma* (pre-operative therapeutics) precedes these and includes *Snehana* (oleation therapy) and *Swedana* (fomentation therapy). Before the use of *Snehana* and *Swedana*, *Pachana* (digestive therapy) and Agni-promoting treatments are introduced. Post-operative therapeutics — such as dietetic methods to restore Agni and sedative and promotive treatments — are an important component of *Pancha Karma*. A significant aspect of Ayurveda is rejuvenation, the process of rebuilding the body's cells and tissues after the removal of toxins.

2. Ear, Nose and Throat (*Shalakya Tantra*). Sushruta discusses approximately 72 diseases of the eye in this branch of Ayurveda, which also supplies surgical procedures for the removal of cataracts and for diseases of the ears, nose and throat.

3. Toxicology (*Agada Tantra*). The subject of this discipline is air and water pollution, toxins in animals, minerals and vegetables, epidemics and other related topics.

4. Paediatrics (*Kaumarabhritya*). Ante-natal and post-natal care of the baby and mother are addressed, and topics include: how to conceive; how to choose the child's gender; his or her intelligence and constitution; childhood diseases; and midwifery.

5. Surgery (*Shalya Tantra*). Although Ayurveda rarely recommends surgery, health care practitioners in ancient India knew sophisticated surgical methods more than 2000 years ago. This information spread to Egypt, Greece and Rome and eventually throughout the world. Cases such as intestinal obstructions, bladder stones, and the use of cadavers for dissection and learning were taught and practised.

6. Psychiatry (*Bhuta Vidya*). A complete branch of Ayurveda specialises in the diseases of the mind. In addition to herbs and diet, yogic therapies (ie. meditation, breathing, mantras, etc.) are prescribed as treatments for psychiatric illnesses.

7. Aphrodisiacs (*Vajikarana*). This section deals with the two aspects of infertility (for those wanting children) and spiritual development (for those who wish to transmute their sexual energy into spiritual energy). Rejuvenation, the prevention of disease and the promotion of longevity are the topics discussed in this branch of Ayurveda.

8. Rejuvenation (*Rasayana*). Prevention and longevity are the topics discussed in this branch of Ayurveda. Charaka states that the methods of longevity include ethics and virtuous living.

AYURVEDA TODAY

This has, of necessity, been an extremely brief introduction to the father or mother of all medicine in our world today. Ayurveda's sophisticated and extensive study of the human

mind-body-intellect combination serves humanity as well now as it did more than 2000 years ago. It should be remembered that Ayurveda came out of one of the world's most profound studies into the human being as a living organism composed of cells, the thinking mind, feelings and emotions and the spirit within. Ayurveda thus offers us a highly evolved system of caring for the whole being in a holistic and respectful manner.

As dissatisfaction grows in the Western world with the 'modern' medical systems available, interest in the 'ancient' and 'alternative' forms of healing increases exponentially. It rather seems as if the first health science to be developed is the last to be re-discovered. Yet, despite its relatively recent re-emergence onto the world stage, Ayurveda's popularity is growing exponentially. In part, this is due to the fact that it offers a vision of health which involves healing and balancing the person at the root cause of an illness, rather than treating symptoms in isolation.

Among the *Rig Veda's* 10,572 hymns are found discussions of the three Doshas (Vata, Pitta and Kapha), organ transplants, artificial limbs, and the use of herbs to heal diseases of the mind and body and to foster longevity. Anatomy, physiology and surgery are discussed in the *Atharva Veda's* 5977 hymns. Several Mantras in this *Veda* are devoted to such topics as fever, consumption, the healing of various wounds, the treatment of leprosy and handling incidents of poisoning. Later research in Ayurveda was built on these foundations, and the entire science of healing and the promotion of a healthy life were developed.

These Mantras guide the practitioner to treat ailments through the use of water, sunshine, air, herbs, metals and minerals, as well as carefully prepared medicines which rebuild the strength of the body. The *Atharva Veda* verses

6:7 and 6:57:3, for example, contain references to diseases which are curable through the use of water and vaporisation. The importance of water therapy is emphasised in the following words:

“Let it be health and joy to us.

Let nothing torment or injure us.

Let water be the universal medicine.” (6:57:3)

Atharva Veda verses 1:4, 5 and 6 contain copious references to water therapy, declaring the efficacy of water in so many words:

(1:4:4) Water contains nectar.

(1:4:4) Water is medicinal.

(1:5:1) Water is beneficial.

(1:5:2) Water is the ‘essence’.

(1:6:2) Water contains all medicinal properties.

“Waters, team with medicine to keep my body safe from harm; and water destroys the diseases of the internal organs.”
(*Rig Veda* 1:23:21)

“Rain and the water from waterfalls have electric power that makes the body elastic like that of a horse.”
(*Atharva Veda* 19:2:4)

“The waters are the sovereign remedy; herbs possess divine efficacy.” (*Atharva Veda* 8:7:3)

Evidence of chromopathy is also found in the *Veda Mantras*. Reference to treatment of diseases of the heart, kidney, liver and so on by means of the sun’s rays are found in *Atharva Veda* 1:22 and 1:83. In *Atharva Veda* 9:8, it is mentioned that the rays of the sun absorb the toxic elements of the body, which explains the sun’s effectiveness in curing disease. The Mantras also underline the fact that sunlight kills germs:

“Slayer of things unseen, the sun, beheld of all, rises.”
(*Rig Veda* 1:191:8)

“Uprising, let the sun destroy the worms.” (*Atharva Veda* 2:32:1)

“These worms cannot bear the sun.” (*Atharva Veda* 8:6:12)

The efficacy of sunlight in the treatment of heart disease and jaundice has also been underlined.

There are several verses dealing with fever therapy. *Atharva Veda* 5:22 mentions fevers and their cure. The types of fevers are as follows:

1. That which occurs daily.
2. That which occurs every third day.
3. That which occurs every fourth day.

In addition, seasonal fevers are also mentioned:

1. Fever which occurs during the summer on account of excessive heat.
2. Fever which occurs during the winter monsoons.
3. Fever which occurs during the rainy season.
4. Malarial fever which is accompanied by fits of shivering.
5. Fever which occurs due to dryness.
6. Fever which arises on account of phlegm.
7. Fever accompanied by bronchitis.
8. Fever where phlegm and bronchitis occur as parallel symptoms.

Atharva Veda verse 22 mentions the classes of people who suffer from attacks of fever: the thin and lean or those who are dissipated (22:6), the obese (22:7) and the over-indulgent or voluptuary (22:12).

Several remedies have also been suggested to counteract various ailments.³ We reproduce below the English rendering of some verses from the *Atharva Veda*. Even when the verses are invocatory, they enunciate important principles of health

care, herbs, medicines and natural curative methods, which are elaborated in the *Materia Medica* of Ayurveda.

Just as light hangs between the earth and the firmament, so does *Munja*, a healing medicinal herb, cure fever and dysentery. [1:2:4]

O patient suffering from a urinary disease, just as the water of the flooded ocean rises up and flows into streams, so have I unclosed the orifice of thy bladder. May that urine of thine come out completely unchecked. [1:3:8]

Those veins, serviceable like maidens, which run their course clothed in blood, must now stand quiet, like sisters who are brotherless and bereft of power. [1:17:1]

O patient, we control thy jaundice with the seeds of *Shuka* trees and other strong healing medicines. We cure thy jaundice through the use of efficacious mixtures. [1:22:4]

Plant, thou sprangest up at night, dusky, dark coloured, black. So *Rajni*, re-colour thou these ashy spots of leprosy. [1:23:1]

The medicinal herb named *Shyama*, dug out of the earth, imparts beauty and cures leprosy. [1:24:4]

O woman, from thee we banish and expel the cause of thy sterility. We lay this apart and far removed from thee in another place! [3:23:1]

As arrow to the quiver, so let a male embryo enter thee. Then from thy side be born a babe, a 10-month child, thy heroic son. [3:23:2]

By the use of the auspicious seeds yielded by the herb named *Rishbhak*, do thou, O woman, obtain thyself a son: be thou a fruitful mother-cow! [3:23:4]

Dawn stimulates the body, the sun lends vigour to our organs, this imperative word of mine creates an urge, this semen-enhancing, man-protecting medicine named *Vrisha*

through its invigorating juice lends strength to the body. [4:4:2]

O man, if a hunter with five fingers hath filled thy body with poison from the crooked arrow, I ask thee to remove the same through the leaves of the herb *Apaskambh*. [4:6:4]

I charm away the poison with the thorn of a porcupine, with the paint of *Parndhi*, with *Ajashringhi* brought from a distant place, and by the use of the *Kulmal* herb. [4:6:5]

The herb named *Rohini* is the healer of the broken bone. May *Arundhati*, wound-healing herb, heal up this wound! [4:12:1]

Felicitous is this, my left hand, yet more felicitous is this the right one. This hand contains all healing properties, its gentle touch brings peace and welfare. [4:13:6]

With our 10-fold fingered hands, with our tongue that leads and precedes the voice, with these two healers of disease, we stroke thee with a gentle fondling touch. [4:13:7]

O King, punish the pharmacists who use a deadly medicine, those who prepare an adverse injurious medicine in an unbaked or fully burnt dark red earthen pot, or inject poisonous matter in raw flesh! [4:17:4]

The *Apamarga* is the foremost among all plants. With this we wipe away whatever disease hath attacked thee, O patient. Get rid of it and live long! [4:17:8]

Let disease-germs in waters be washed down, just as a stream, filled with water, flows down fast. Five medicines are helpful in dislodging them: 1. *Gulgulu*, 2. *Pila*, 3. *Naladi*, 4. *Aukshagandhi*, and 5. *Pramandani*. [4:37:3]

The sun's rays are blazing like hundreds of iron weapons. With those let it destroy the germs that feed on oblations and *Blyxa Octandra*. [4:37:8]

O female, we shall destroy altogether from this world the poison or the disease-germ which kills the sperm in the

very act of falling in thy organ of generation, which kills it in the iambic stage, which kills it when it has begun its movements in the womb, which wishes to kill it when it is born. [4:96:13]

Sun is thy grand sire, night thy mother, and the cloud thy sire. Thy name is *Silachin* (wax), thou thyself are sister of the learned. [5:5:1]

Thou springest from blest *Plaxa*, or *Ashvattha*, *Khadira*, *Dhava*, blest *Nyagrodha*, *Parna*, so come thou to use, O medicine, the filler of wounds. [5:5:5]

God-coloured, lustrous, shining like the sun, most lovely, O healing medicine, thou art applied to the wound or fracture. Healing is thy name! [5:5:6]

O learned person, in consultation with other physicians, arrange in such a way that the fort of this disease may fall, which hath caused us pain, whichever hath consumed our flesh! [5:29:2]

Whatever of the body of this sick man hath been taken, plundered, borne off or eaten by the flesh-consuming germs, that, O learned physician, restore to him again through medicine. We give back flesh and spirit to his body. [5:29:5]

If some flesh-consuming germ, entering my raw, cooked, half-cooked or thoroughly cooked food, hath injured me, let the germs with their lives and offspring be destroyed, so that I may be free from disease. [5:29:6]

The deadly poison that the enemies mix in thy food, drinking water or administer it in the raw fruits, the same do I remove. [5:31:1]

With efficacious medicine do I rub the body of the patient. Streams, mountains, hillocks contain useful medicines. May the nourishing, sleep-inducing medicine be effective. May it bring peace to thy mouth, peace to thy heart. [6:12:3]

O abscess, of consumption, of inflammation of the eyes,

O plant, of painful itch, thou herb, let not a particle remain. [6:127:1]

Those two eruptions, consumption, which stand closely hidden in thy groin, I know the medicine for them. *Chipudru* is their magic cure. [6:127:2]

I have removed the poison of this scorpion that creeps along low on the earth and is now poisonless. [7:56:5]

Black vein is the mother, we have heard, of red-hued pustules. I pierce and penetrate them, with the aid of a surgical knife. [7:74:1]

I pierce the foremost one of these pustules. I perforate one of medium intensity. Here I cut asunder the pustule of little intensity like a lock of hair. [7:74:2]

O girl, fit for marriage, thy mother rejects as thy husband him who suffers from skin disease of leprosy, and him who is far advanced in age. They should never long to marry thee. [8:6:1]

The mother should reject as her daughter's husband the meat-eater, the companion of meat-eaters, a man violent in nature, one cruel like a wolf, a thief, a grey-haired person, one who suffers from gonorrhoea, a dandy, one stiff-necked like a bear, one suffering from photophobia. [8:6:2]

O leper, don't try to be married. If married through mistake, co-habit not with this girl. Do not live in her house. For this girl I select a beautiful husband as remedy for one suffering from leprosy. [8:6:3]

All-invigorating, semi-augmenting, health-infusing, highly brittle, highly efficacious, attractive medicines, we use for curing ailments. [8:7:1]

May the herbs whose father is the sun, their mother the earth, the water their root, deliver this man from consumption, born of lust. [8:7:2]

Let plants that banish pain, whose soul is water,

piercing with their sharp horns, expel the malady. [8:7:9]

Medicines that free us from disease, cure dropsy, are strong in action, are antidotes of poison, remove coughing and pneumonia, alleviate pain; let all of them be collected in this medical hall. [8:7:10]

The *Durbha* grass, fire, the grass sprout, *Ashvaivara* [and] *Parushawara* act as antidotes against the serpent's poison. [10:4:2]

The *Kairatika* or *Kumarika* drug is dug on the high ridges of the hills. [10:4:14]

O plant, thou art named as *Taudi*, *Kauya* or *Ghritachi*. I take from underneath thy root the part that is poison-killing. [10:4:24]

O medicine! From every member drive away the venom, and free the heart from it. Thus let the poison's burning heat pass downward and away from thee. [10:4:25]

Let the *Jangida* herb drive away the fatal diseases like *Asharika*, *Vishrika*, asthma, cancer of the backbone, [and] consumption which eats up the energy of the body. [19:34:10]

O lady, let the learned physician, well-versed in the science of killing germs of all diseases, in consultation with a Vedic scholar efface from thee the malignant disease which has taken hold of thy uterus. [20:96:11]

O lady, let the expert physician, with his Vedic knowledge and learning, thoroughly destroy the malicious disease which is lying latent in thy womb. [20:96:12]

These poisonous plants should remain in a safe place! The rugged mountain that produces this herb should remain under the supervision of the Government. [21:6:8]

1 CD-ROM edition.

2 Tanmatra is the link between the sense organs and the gross elements.

For further elaboration see the chapter "Definitions, Concepts and Metaphors".

- 3 English rendering taken from *The Holy Vedas*, edited and prepared by Pandit Satyakam Vidyalkar, pp. 389–398.



SECTION SIX

Tools of Learning

*tam aseet tamasa goohyaamagre apraketam
salilam sarvama ah idam
tuchhyenabhyupaihitam yadaseet
tapasastan mahinaajayataikam*

In the beginning was darkness swathed in darkness;
All this visible world was reduced to its primordial nature.
This primordial world which was enveloped
By the all-pervasive power of infinity,
Hidden by the Void,
Was generated by the power of focused exertions.

RIK VEDA 10:129:1-3



CHAPTER SIXTEEN

Definitions, Concepts and Metaphors



THE GLOSSARY GIVEN AT THE END OF THIS BOOK provides English equivalents of approximately 1000 Sanskrit terms used in this work. However, a note of caution must be struck here: the reader should realise that these English equivalents may turn out to be misleading unless the concepts they seek to communicate are situated within the cultural ambience in which these ideas have travelled over several millennia.

Definition is a precise statement of the nature of the properties, scope or essential qualities of an entity. It is the explanation of a concept. A definition should be a formal elucidation of the meaning of a word or phrase, which brings about precision, clarity and exactitude. In many cases, a contextual definition is more important than a verbal or nominal definition. In such a contextual definition, the signification of an expression or a symbol is defined implicitly by its context or use, which may be historical, cultural, geographical or social. Trans-cultural translations present grave hazards because they tend seriously to distort carefully defined differences between types of nouns. For example, terms such as Vedic Revelation, the God of Hinduism, the Grace of Vishnu, Russian Democracy or the Lord Buddha convey different concepts in different social and cultural settings. By 'grace' readers may well understand Christian grace, by 'god' and 'revelation' the conception of the divinity and its disclosure according to the Semitic religions, while

'democracy' may convey to them the British model by that name. As the readers of this work would have noted, grace, god and revelation denote entirely different concepts in the Vedic lexicon.

The seer-scientists often took recourse to metaphors to communicate complex ideas. A name or a descriptive term or phrase is imaginatively applied to an object, action or process. *Ganesh*, famous as "the god with the head of an elephant" is an eloquent example: he is sturdy and wise as an elephant; and he has a large head wherein he stores experiences accumulated over time. Translated literally, *Ganesh* means 'chief' or 'master' (*Isha*) of the community or group (*Gana*). Since wisdom and experience are essential prerequisites of a leader, *Ganesh* is invoked before the commencement of every activity or project. This may pertain to study, business or social interaction, and serves to remind people of the importance of wisdom, experience, depth, dedication and sturdiness for success. A reference to *Ganesh*, or for that matter to *Vishnu*, *Shiva* or *Saraswati*, would bring to the mind of someone conversant with the cultural context a comprehensive image of a set of ideas and concepts. In the absence of that understanding these references would appear to be merely bizarre images.

The process of deciphering a word used in the *Vedas*, therefore, involves the identification of the root from which the word has grown; it develops with the addition of suffixes and prefixes. It becomes necessary to trace the journey of each word through a labyrinth of ideas and concepts and to locate them in the cultural context of the *Sanatana Dharma*. As we shall explain presently, this has been erroneously translated and interpreted as a 'religion'.

In one sense, this entire work seeks to define a few terms and concepts used by the seer-scientists to communicate the

Vedas. However, in the process of that definition we have had to use other words and terms which require explanation for a clearer and more accurate comprehension of that which they seek to convey. To give to all words used in this book a "full treatment" would be to lose our focus, which is to introduce the reader to the true message of the seer-scientists encoded in the *Veda Mantras*. Therefore, in this chapter we have tried to define only some of the numerous terms used in this work. It is hoped that this process of definition will help our readers when they consult the Glossary. The words have been chosen in accordance with the duration of the journey with which we have travelled in their company, and the significance of the ideas connected with them. This is principally because some words tempted us to proceed from one layer of meaning to another and look at them from one dimension to another. In other cases, we resisted the temptation in the hope that interested readers will make the effort to become more familiar with the meaning, message and significance of those words on their own.

All the words selected for definition have been italicised throughout this chapter so that they may easily be located on the page, even though some of them are not defined at their first mention. The reader is urged to study this work — most particularly the concepts and metaphors used to define a word or phrase employed by the seer-scientists — in the classical sense of the word. 'Study' includes not merely intellectual effort but also voluntary commitment and spontaneous enthusiasm.

In the Indian cultural tradition, study requires a *Guru*, who is a teacher or instructor, albeit one with a difference. In the *Sanatana Dharma* there is no one higher than the *Guru*. *Gu* means 'darkness'; *Ru* denotes that which banishes (something). Thus *Guru* means 'one who dispels darkness'.

A student is a seeker of truth and the *Guru* is the guide who propels the student towards the truth.

We are usually full of defects, which render our minds fickle. We are unable to keep our minds trained on a single object even for one moment. Only when we meditate on one who abounds in knowledge and who is still and steady can we attain a state of equipoise and stillness. This could be an entity or a human being possessed of these qualities, and that entity or human being is our *Guru*. A person obtains *Jnana* only through the grace of the *Guru*.

The words *Guru* and *Acharya* are often used in the same sense, but there is a difference between the two. An *Acharya* sets an example through his or her life and conduct. (S)he is one who enquires into the meaning of the *Shastras*, instructs others in the *Shastras*, lives in accordance with them and leads others by example to live in accordance with them also. An *Acharya* instructs by precept and practice, not merely speaking or writing about the *Shastras*. (S)he is one who lives a disciplined life according to the customs and practices governed by the *Shastras* and the tradition to which they belong. An *Acharya* must be a profoundly learned person with the ability to dispel the doubts of others.

Guru also means 'weighty' or 'big'. A *Guru*, therefore, is one who has an inner greatness, one who is important. An *Acharya*'s qualities or qualifications are outwardly discernible in the person's conduct and role as a teacher, although it is of course the inner character which is revealed in the outward conduct. The *Guru*, on the other hand, need not *do* anything outwardly perceptible to the world, nor be a learned person in any mundane sense. It is also not necessary for the *Guru* to set an example through personal conduct, unlike the *Acharya*. In fact, a *Guru* need not open his or her mouth to teach people or give them instructions. There have been many

Mauna Gurus, who never uttered a word but remained absorbed in silence. The *Guru*'s world is one of inner experience or realisation, and it is the 'weight' of this inner experience or realisation which entitles him or her to be called a *Guru*. To a seeker after truth, a *Guru* is essential.

In a deeper sense, the real *Guru* is the pure intellect within and the purified mind, deeply aspiring to know the truth, is the disciple. Thus, the most important factor is our own effort. In sincere seeking and quest, the equipment — our inner self — needs to be purified. When this has been accomplished, the *Guru* — who is necessary for the next stage of growth — shall reach us. This is the Eternal Law.

Ultimately the dialogue between the *Guru* and the *Shishya* (disciple or student) must take place within us. This is the process of seeking the truth. However comprehensive and elaborate the interactions may be externally during the physical meeting of teacher and student, these will not help the aspirant to move into the subtler realms of truth within himself or herself. Through the *Mantra*, the *Guru*'s power enters the disciple, and we make that power work with great force by repeating the *Mantra*.

A *Guru* helps the seeker to gain *Jnana*, which is translated as 'knowledge'. This process begins as an acquaintance with a fact or facts and becomes a state of being aware or informed. It is the intellectual perception of fact or truth. Knowledge is a clear and certain understanding or awareness, in direct opposition to opinion. But *Jnana* is a technical term, in the sense that it is knowledge of the truth that the diversity and variegated plurality of the universe arises from one source and is finally subsumed in the same source. The process by which that indivisible source evolves into variety is *Vijnana*; how that plurality and diversity is subsumed in the unity is *Jnana*. The attainment of true

knowledge really means the re-discovery of the Self in us, which is never non-existent.

Gaining true knowledge is akin to an exercise of removing darkness. Even if we spend time and effort in sweeping a dark room, the room will remain dark because sweeping is not an appropriate method for removing darkness. But if we take a light in our hand and enter the dark chamber, however thick the darkness may be, the room will be illuminated in a moment. Similarly, the ignorance (*Ajnana*) in us obscures the pure light of knowledge, covering it with a veil of unknowing. The luminous consciousness, or Self, is ever bright, so that the enveloping ignorance has only to be brushed aside. Remove the misunderstanding about our true nature, and the Self stands revealed. We need not 'discover' it, for knowledge alone is the antidote to ignorance. The sunshine is ever bright, lighting up the world all the year round. The passing clouds hide its glory and, as they move away, the sun is revealed.

Agama facilitates the gaining of knowledge. In his *Sanskrit-English Dictionary* (1990), Sir Monier Monier-Williams gives the meaning of *Agama* as "coming near, approaching, appearance or reappearance, income, lawful acquisition of property, acquisition of knowledge, science, collection of such doctrines, sacred work, anything handed down and fixed by tradition (as the reading of a text or record)." Failing to understand its connotation, some Western scholars have dismissed *Agama* as "a meaningless syllable or letter inserted in any part of the radical word". In its true sense, *Agama* is the activity or process of the mind which enables the mind to know something through the information conveyed to it by a trustworthy person or an authoritative text. In turn, the trustworthy person, by means of a perception or an inference, had earlier acquired the knowledge which (s)he is now communicating.

Scholars have translated the expression *Agama* in different ways: testimony, verbal cognition; verbal communication or competent evidence. It is generally translated as 'testimony', but this translation is not comprehensive. *Agama* is not the communication transmitted by the authoritative person, but rather the cognitive process which this communication produces in the person who receives it.

The goal of all these activities is to discern the true nature and meaning of our existence — what we are, where we are, how we have come here and where we are going. The existence of an individual¹ — animate or inanimate — becomes discernible through the three factors of function (*Kriya*), form (*Roopa*) and name (*Nama*). These three ingredients define existence and constitute *Abhwa*. Existence is an indivisible phenomenon. When we become aware of the existence of an object, this indivisible phenomenon acquires the three dimensions of function, form and name.

The universe is the totality of all that has been created, and this totality has evolved from one source or foundation which is known as *Brahma*. *Brahma* is of two kinds: *Abhu* and *Abhwa*. The one who sees, the seer, is called *Abhu*, and that which is seen, the scene, is *Abhwa*. That which is not bound by direction, space and time is the seer. In contrast, that which is bound by direction, space and time is the act, the scene, known as *Abhwa*.

Jagat also conveys the sense of the universe, but it is not to be understood as the gross outer world only, as we usually conceive it. Rather, *Jagat* is the total experience of an individual in the three states of existence — the waking, dream and deep-sleep states — experienced by means of our physical, mental and intellectual 'equipment'. In short, *Jagat* includes the world of objects cognised for enjoyment as forms, smells and so on through the sense organs; as feeling

and emotions experienced by the mind; and as ideas and ideologies lived by the intellect. The totality of experience gained through our gross, subtle and causal bodies is *Jagat*.

Loka is another term indicating the world. Etymologically, *Loka* means a field of experience — the special world in which I live in my own inner experiences — while the external world of objects remains virtually the same for all. *Loka* is more of a non-physical notional space than physical space itself.

In an earlier paragraph we used the phrase 'gross body'. The gross body is composed of the five (elements) *Bhootas*: space (*Akasha*), air (*Wayu*), fire (*Tēja*), water (*Apa*) and earth (*Prithivi*). If we observe the body during its disintegration after death, we find that soon after life has departed from it the heat contents pass out and the body becomes icy-cold (fire): it bloats and emits gas (air), and soon it decays in its own juicy contents (water). Finally the bare physical structure decays and is transformed into dust (earth). The space occupied by the body is yielded (space).

In all creation the gross evolves from its subtler state, the cause precedes the effect. The theory of *Panchikarana* elaborately explains how these five *Bhootas* or elements grow and intermingle, and how they develop from the subtle *Tanmatras*. The concept of *Bhoota* or *Mahaboota* as material element, classified in five categories, was most particularly developed in the *Samkhya* and *Yoga* schools of Indian philosophy. These five gross elements are also defined in correlation with the five senses, and the properties of the elements are conceived in correlation with human sensibility.

Bhoota is one among many words derived from the root *Bhu*, meaning 'to be' and expressing the idea of growth, development, prospering, the dynamic aspect of being. *Bhu* refers to a being from the perspective of the process of

creation, the idea of being produced, taking birth, becoming, getting enriched; whereas *Bhava* refers to the being from the perspective of its accomplished state. Words derived from these roots betray their original difference. *Bhava* refers to the process of creation of an entity, to its coming into being, to its being in the making, its transformation, its growth; *Bhuti* refers to well-being, enrichment, even self-transcendence. Indian grammarians consider that there are two roots of the same form, thus explaining the manifold layers of meaning of their derivatives.

Bhoota is the past participle of *Bhu*. It is used as an adjective in the sense of 'past', 'produced' or 'happened', but also as a noun which is masculine when conveying the meaning of 'living being' or 'creature', neuter with the meaning of 'well-being', 'reality' or 'element', and optionally masculine or neuter when referring to a supernatural being.

Mahabhoota is a determinative compound of *Mahat*, meaning 'great' or 'gross', and *Bhoota*. It is used in the masculine gender to refer to a 'great living being', and chiefly in neuter to refer to the gross elements of the earth and so forth.

Many derivatives of *Bhu* express the idea of birth, creation and 'mental representation' which is a creation by the mind. *Bhava* refers to mental states and to all mental productions. *Bhoota*'s meaning is 'being', and the contexts indicate that it refers to all that is created, the world in general or living beings.

Akasha, one of the five *Mahabhootas*, is derived from the root *Kas*, meaning 'to shine' or 'to be visible', with the prefix *A*, meaning the 'space' which lets all things be visible, allowing them to manifest themselves. Space is that in which the sun and other luminous entities shine.

The word *Akasha* and its synonyms *Kha* and *Vyoman*, used in their primary, symbolic and metaphorical sense, cover

a large range of meanings relating to various levels — physical and metaphysical, elemental and transcendental, microcosmic and macrocosmic, mathematical and astrological. In the course of our journey through these layers of meaning, we start from a small point or hole and reach ultimate reality. The different meanings and shades thereof are often interconnected and merge into one another.

At the physical or material level, space is one of the five elements. Its property is sound and it provides everything with space. It does not conflict with the other elements, but co-exists with them and pervades them. In the body, it appears in the form of the cavities. Even at the physical level, space is both outside and inside a person. Normal perception takes place in material space, while supranormal perception can take place in mind as space and in consciousness as space.

The five *Bhootas*, or gross elements, of which space is perhaps the most important, figure prominently in *Samkhya*, one of the six systems of Indian philosophy. This is also spelled *Sankhya*, which bears the meaning of 'enumeration' or 'number'. Of the various teachers whose names are mentioned in the *Mahabharata*, three are frequently referred to in the later technical philosophical literature as being important precursors of *Samkhya* philosophy. These three are Kapila, Asuri and Panchasikha. The *Samkhyas* were champions of the view that the effect exists in potency already in its cause, which merely needs to be prodded slightly in order to make the effect manifest to observation. The *Samkhya* conceived of this version of change as a process which takes place in the real world external to our minds. *Samkhya* thinkers were among the first to propose systematic techniques which warrant the title of logic.

The *Samkhya* adopted a consistent dualism of the

orders of matter (*Prakriti*) and Self (*Purusha*), which could also be perceived as a dualism between matter and pure energy. The two are originally separate, but in the course of evolution *Purusha* mistakenly identifies itself with aspects of *Prakriti*. Right knowledge consists of the ability of *Purusha* to distinguish itself from *Prakriti*. This dualism concerns two all-pervasive ultimate principles, namely pure consciousness construed pluralistically, and one primordial materiality. *Purusha* and *Prakriti* being sufficient to explain the universe, the existence of a god is not hypothesised in the *Samkhya* philosophy.

In this view, primordial materiality is made up of the three constituent processes (*Gunas*) of intelligibility (*Sattva*), activity (*Rajas*) and inertia (*Tamas*). Because of the all-pervasive co-presence of the two ultimate principles, these three constituent processes of primordial materiality undergo a continuing transformation and combination. Viewed analytically, the various transformations and combinations of primordial materiality are simply parts of a totally functioning whole. Viewed synthetically, primordial materiality (with its constituents) is construed as a basic unmanifest material cause from which 23 pre-existent effects become manifest. These are: 1. the intellect; 2. ego-sense (*Ahamkara*)²; 3–7. a group of five subtle elements, all of which are described as being both creative and created; 8–23. a group of 16 additional emergents, including mind, the five sense capacities, the five action capacities and the five gross elements. The five subtle elements, the five sense-capacities, the five action capacities and mind emerge from and make up the structure of ego sense, which itself emerges from the intellect. The gross elements emerge from the five subtle elements and together constitute the natural body and the phenomenal world.

Since mind holds the key to our journey to Self-realisation or discovery of the Truth, regulating the foibles of the mind is central to our ability to realise our full potential. *Chitta*, often translated as 'mind', should be viewed as the seat, the organ or the aggregate of the intellectual (cognitive), volitional and emotional activities, functions and processes of the individual.

Before manifesting on the gross level, the five great elements of space, air, fire, water and earth were each themselves; in their pure natural states they are known as the *Tanmatras*. Their manifestation on the gross or material level takes place in five definite scientific stages, as follows:

Stage 1: they remain in their own individual pure state.

Stage 2: each *Tanmatra* of all the five elements shows a tendency to split into two equal halves.

Stage 3: they split into two halves.

Stage 4: a half-*Tanmatra* of each element remains intact and the other half divides itself into four equal segments, each being one-eighth of the whole *Tanmatra*. Thus each *Tanmatra* (of stage 1) has split into five segments: one half-segment and four one-eighth segments.

Stage 5: each half remains the same, and it combines with the four one-eighths segments borrowed from all the other four elements.

From the five *Tanmatras* come the five *Bhootas* of *Akasha* and so on. From the *Tanmatra* of sound comes space, whose property is sound; from the *Tanmatra* of touch, accompanied by the *Tanmatra* of sound comes wind, whose properties are sound and touch; from the *Tanmatra* of colour, accompanied by the *Tanmatras* of sound and touch comes fire, whose properties are colour, touch and sound; from the *Tanmatra* of taste, accompanied by the *Tanmatras* of sound, touch and

colour comes water, whose properties are taste, colour, touch and sound; and from the *Tanmatra* of smell, accompanied by the *Tanmatras* of sound, touch, colour and taste comes earth, whose properties are smell, taste, colour, touch and sound.

In order to describe the link between the sense organs and the elements, the *Samkhya* school developed the concept of *Tanmatra*. The properties of elements are specified with particular qualities which share something in common. There are different sounds of numerous pitches, volumes, tempi and so forth, but they all have the property of being a sound. That which is the mere general sound is called *Tanmatra*, 'only that'. This *Tanmatra* is considered as a state of matter in the cycle of transformation. It is subtle and is subject to a further transformation into a gross element. The scheme of transformation is such that the elements are issued from one or more *Tanmatras* and have one or more of the corresponding properties. The following chart indicates the number of *Tanmatras* producing each element and the number of corresponding properties of each one:

<i>Tanmatra</i>	<i>Akasha</i>	<i>Wayu</i>	<i>Tejas</i>	<i>Apa</i>	<i>Prithwi</i>
<i>Shabda</i>	★				
<i>Sparsha</i>		★	★		
<i>Roopa</i>	★	★	★		
<i>Rasa</i>	★	★	★	★	
<i>Gandha</i>		★	★	★	★

Tejas (the primary form of the word generally spoken as *Teja*) is one of the five *Bhootas*; always neuter, it is derived from the root *Tija-nisane*, 'to be sharp'. *Tejas* is commonly translated as 'shining' and 'light'. Its etymological meaning, namely sharpness or pointedness is generally forgotten, except in Hindi where *Tej* means 'sharp'. From this original meaning,

the word has come to express the point of a flame, a sharp ray of light, and then fire and light. The idea of sharpness and keenness survives in the meanings connoting strength, valour and so forth, and also in its other meanings — a certain shining in the form of radiance, effulgence; and the dynamic, expansive or even harmful aspect of light and fire. Thus *Tejas* means power, light and strength.

So far we have been looking at the terms generally used to explain the processes in the physical universe. As we move from the physical world to the supraphysical world, the problems of definition and comprehension demand greater sophistication and take us into an entirely new conceptual world. For example, let us take the word *Ananda*. *Ananda* literally means the sentiment of joy, of bliss, of well-being, of placidness. In *Yoga*, this sentiment is the result of the calmness and relaxation borne in the wake of restraint of the mental processes. It is experienced and commonly observed by those who practise *Yoga*.

Ananda is the first form or manifestation of *Atma*. It appears to be travelling in all directions while remaining stationary at the same time. In Veda, *Ananda* belongs to the supraphysical universe and conveys this message at a much deeper level. Something which gives birth to something else without being either depleted or deformed in the process is known as *Ananda*. This 'quality' distinguishes it from objects of the physical universe. When a sprout arises from a seed, the seed is 'deformed'. Similarly, curd is formed when milk is 'destroyed'. Animals eat grass, but this grass is 'destroyed' when milk is formed within their bodies. In contrast, that from which various things continue to be born but whose original form is neither destroyed nor affected in any way is *Ananda*.

Ananda has two syllables: *Aa* and *Nanda*. *Aa* means 'all around', while *Nanda* denotes 'expansion, augmentation or

advance'. That which advances vigorously but does not move at all is *Ananda*. In the chapter, "Jeeva, Ishwara and Parmeshwara", we have noted that this is a symptom of *Atma*. Therefore, *Atma* is called *Ananda*.

To remain still or peaceful is the natural attribute (*Dharma*) of water. The movement in water takes place because of external factors like the wind. Similarly, the 'natural' attribute of *Atma* is to remain peaceful, to be happy. The stirrings in it are because of ignorance emanating from external elements. As ignorance diminishes and knowledge increases, *Atma* gains strength, its movements are lessened, and results in peace. This peace is a form of *Ananda*, which is the reason for *Atma* being known as another manifestation of *Ananda*. It is also said that *Atma* is permeated with *Ananda*.

Rishi is another significant term which needs to be explained here. Like the word *Devata*, which is erroneously translated as a 'deity' or 'god', *Rishi* is also a much misunderstood and misinterpreted term. Western scholars have translated it as "a singer of sacred hymns, an inspired poet or sage, any person who alone or with others invokes the deities in rhythmical speech or song of a sacred character."³ Maharshi Aurobindo, the great Indian mystic and philosopher of modern times, has expressed the view that "The *Rishis* of the *Upanishads* sought to recover the lost or waning knowledge by meditation and spiritual experience and they used the text of the ancient *Mantras* as a prop or an authority for their own intuitions and perceptions; or else the Vedic Word was a seed of thought and vision by which they recovered old truths in new forms. What they found, they expressed in other terms more intelligible to the age in which they lived."⁴

The word *Rishi* has evolved from the root *Rish*, which means 'to move', 'to push', 'to thrust'. Before the process of

creation begins there is an undifferentiated, limitless, formless ocean of supraphysical energy. As we have explained in earlier chapters, at some juncture there are stirrings in this ocean. That which comes into motion spontaneously in this motionless ocean of supraphysical energy is *Rishi*. The seer-scientists who 'discovered' or 'saw' these forces which come into motion spontaneously and on their own were also named after these *Rishis*; or the *Rishis* were named after these seer-scientists.

The *Rishis* have given us the *Vedas*. The texts which explain the supraphysical phenomenon called '*Veda*' have been compiled in four major collections. These books of *Vedas* are divided in two parts: *Brahma* and *Brahmana*. The *Mantra* portion is called *Brahma*. This part explains the 'science' of the cosmos, the *Veda* of all that exists. It is divided into prose, poetry and musical portions. The verse portion is *Rig Veda*, the prose portion is *Yajur Veda* and the portion to be sung is *Sama Veda*. The explanatory part of the *Mantra* portion is *Brahmana*, which is further divided into three portions: *Vidhi*, *Aranyaka* and *Upanishad*.

Dharma facilitates the pursuit of Self-realisation and indicates three paths to reach the goal. These paths are *Jnana*, *Karma* and *Upasana*. In essence, these three are not different but are three facets of the same path. The *Karma* portion is *Vidhi*, the *Upasana* portion is *Aranyaka* and the *Jnana* portion is *Upanishad*. The *Vidhi* portion instructs us in the concrete actions or practices which take us forward on that path. *Aranyaka* tells us about *Upasana*, which involves invoking the supraphysical energies, achieving proximity and finally total identification with them. The *Upanishad* teaches us *Jnana* or the method of travelling on the path to Self-realisation through the pursuit of knowledge.

Thus, the *Vedas* divide all that needs to be done into the

two parts of *Brahma* and *Brahmana*. *Aranyaka* deals with *Ishwara* in form, and *Upanishad* teaches us about the formless *Ishwara*, while *Vidhi* is concerned with worldly affairs. Although *Aranyaka* and *Upanishad* relate to the form and formless, the two are generally studied together. Practices or applications exist in which both the means and the goals are worldly or physical. However, there are also actions in which both the means and the goals, or results, are supraphysical. The books of injunctions which tell us about such actions are known as *Brahmana*. The seer-scientists expressed what they 'saw' in the physical and supraphysical universe in the form of *Mantras*.

A dictionary definition of *Mantra* is "to speak, talk, say, to deliberate, take counsel, consult with, to resolve upon, to deliberate on, to discuss, to consecrate with magical texts, enchant with spells or charms". From this is derived the word *Mantri* which means "a thinker, advisor, counsellor".⁵ In general usage and in reference to the *Vedas*, *Mantras* are hymns, the verses composing the Vedic texts. *Mantra* is the basis of all practical applications as well as of *Yoga*, meditation and knowledge. The Vedic definition of the term *Mantra* is "that which protects the one who repeats it."

Mantra is sound, and sound reverberates throughout this universe. When water flows, it makes a gurgling sound. When wind blows through the trees, it makes a rustling sound. When we walk on the earth, our footsteps produce sound. Within human beings as well, there is an incessant sound which accompanies breathing.

Sound has enormous power; in fact, it has the power to create an entire universe. Some seer-scientists have pointed out that the fundamental principle of creation originally manifested as sound. The *Upanishads* say that in the beginning there was sound, which reverberated as *Om* or *Aum*, and from that sound everything came into existence. There is a

vibration which reverberates ceaselessly throughout the cosmos, and this vibration underlies all matter and is the substratum of everything. Just as it pulsates within all the objects in the universe, it also pulsates within us. That inner pulsation which we can discover deep within us, throbbing at the root of the mind, is the true *Mantra*. From that inner pulsation arise an infinite number of letters and syllables, which manifest as all the inner and outer worlds.

Mantra can completely transform our inner being. The thoughts and feelings which continually arise in us create our inner state. Outwardly we may appear to have separate identities — a teacher, a student, an engineer, a doctor or a labourer — but inwardly all of us are a continually changing expanse of consciousness. When we project the beam of *Mantra* into this fluctuating expanse, it stabilises it and focuses it in one direction, the direction of the Self. *Mantra* can help us transcend our confusion, and regulate and stabilise the ceaseless fluctuations and changes in the mind. As we repeat the *Mantra*, it begins to permeate all the constituents of our body.

There are two types of *Mantra*: the *Chaitanya* — *Mantra* which is alive or conscious — and the *Jada* — *Mantra* which is inert. An inert *Mantra* has no strength; it is merely an ineffective collection of letters. But a *Chaitanya Mantra* is obtained from a *Guru*, who received it from his or her own *Guru* and who, by fully unfolding its power, has attained Self-realisation. Such a *Mantra* starts its work within a seeker immediately. As the disciple repeats the *Mantra*, his or her dormant power is awakened and a new life is created within him or her. Thus *Mantra* is the ladder by which we reach formless consciousness.

Speech, an interesting form of sound, manifests in a human being on four levels. Most people associate speech

with its grossest level only, the level of articulated speech known as *Vaikharee*. Yet the truth is that the tongue does not speak by itself; the gross sound arises from a subtler level, *Madhyama*, which is experienced in the throat. Beneath this subtle level is a still deeper level called *Pashyanti*, the level of speech, which is experienced in the heart. The origin of sound, however, lies still deeper, in the transcendental level of speech. This is experienced in the navel region and is called *Paravani*.

By the time words reach the tip of the tongue, they have taken a gross form. But before they make their way to the tongue, they have passed through all the levels of speech mentioned in the preceding paragraph. The subtlest level of all is *Paravani*, which is the region of pure, unmanifest sound beyond either duality or non-duality. *Paravani* is actually all-pervasive. It is the subtle vibration from which the entire universe, with all its forms, is born. Here all sounds, all words and all languages arise from pure consciousness. All syllables and words exist within *Paravani* in an undifferentiated seed form.

As sound arises, it passes to the third level of speech, *Pashyanti*, where it begins the process of assuming form but is not yet in a completely differentiated state. When sound passes from this level to the *Madhyama* level of speech in the throat, it assumes a recognisable form. It is at this point that words begin to create the world of differences inside us. Here words are fully formed although they have not yet been uttered. Finally they pass to the gross tongue, the *Vaikharee* level of speech, where they are articulated and can be heard.

Mantra has the power to penetrate through these gross and subtle levels of sound, erasing our sense of difference and carrying us back to its source. When we repeat a *Mantra*, it passes from the gross to the subtler levels, until it reaches

the pure consciousness from which it has arisen. At every successive level it acquires greater power.

Initially, we repeat the *Mantra* silently at the level of the tongue, listening to it as we repeat it and focusing the mind on the tip of the tongue where the *Mantra* is vibrating. After we have repeated the *Mantra* on this level of speech for a while, it goes deeper to the *Madhyama* level in the throat. From the throat centre the *Mantra* descends to the *Pashyanti* level in the heart, where its vibrations become even more powerful. When *Mantra* repetition is taking place at the *Pashyanti* level, the seeker experiences wave upon wave of bliss and acquires extraordinary powers. Finally the *Mantra* reaches the *Paravani* level of speech, where it touches the centre, the Self. Then the entire personality becomes permeated by the *Mantra* and the power of *Mantra* is realised. The *Veda Mantras*, according to Maharshi Aurobindo, are "a sort of divine algebra transmitting the eternal formulae of the Knowledge to the continuous succession of the initiates."⁶

With the proper *Yoga*, words have the power to remove ignorance and reveal truth. The repeated chanting of *Mantras* is an instrument of power. The more traces there are to be overcome, the more repetitions are needed. Just as from a distance, or in semi-darkness, it takes repeated cognition of an object before we see it correctly, so the repeated chanting of the *Mantras* results in the *Sphota* being perceived in all its fullness. The speaker thinks and the listener understands the utterance as a single unit. Those who know the language will conceive the idea and the expression as a single unit, and the understanding is as an instantaneous flash of insight.

When a painter conceives a picture in his or her mind and paints it on a canvas, (s)he may use various colours and make various strokes; that does not mean that the picture is

not a unit. Indeed, we see the picture as a unit, rather than as different colours and strokes. Just as the meaning is unitary, integral and indivisible, so must the symbol which signifies it also be unitary and indivisible. This concept is called *Sphota* — the sentence taken as an integral symbol, in which its apparent parts are irrelevant to it as parts.

Yoga is one of the six *Darshanas* or ancient systems of Indian philosophy, the others being *Vedanta* or *Uttara Meemamsa*, *Poorva Meemamsa*, *Samkhya*, *Nyaya* and *Vaisheshika*. *Raja Yoga* and *Hatha Yoga* are the two main schools of *Yoga*. The basic texts of *Raja Yoga* are the *Yoga Sutras* of Patanjali, the *Yoga-bhashya* of Vyasa and the *Tattvaisaradi* of Vachaspati Mishra. *Hatha Yoga* is the *Yoga* formulated by the famous *Yogi Goraksanatha*.

Raja Yoga is fundamentally concerned with mental control, while *Hatha Yoga* lays greater emphasis on the discipline of the body. The *Yogas* advocate different methods to suit different temperaments, yet their aim is the same — Self-realisation. All *Yogas* enable a practitioner to regulate the *Vrittis* of the mind. The *Vrittis* are the mental processes defined and analysed by Patanjali in his *Yoga Sutras*. These processes are perception, inference, testimony, error, *Vikalpa* and sleep.

According to Fernando Tola and Carmen Dragonetti, renowned Western commentators on Patanjali's *Yoga Sutras*: "There does not exist in the English language a word which connotes such a variety of manifestations of the mental life as are comprehended by '*vikalpa*'." For this reason we prefer not to translate the word *Vikalpa*, which has been translated variously as 'predicate relation, fancy, vague cognition, delusion, verbal delusion, imagination, abstraction, construction'. In his *Yoga Sutras*, Patanjali indicates two characteristics of the mental process called *Vikalpa*: 1. It

follows the knowledge of words; and 2. It lacks a material correlate. Every word produces knowledge in the mind; on hearing the word, its meaning is grasped. The concept and/or image of the object which it signifies arises in the mind. This knowledge is 'created by words', and is a 'verbal knowledge'. Likewise, the perception of an object produces the knowledge of this object in the mind; but this knowledge is an 'objective knowledge', created not by words but by an object. *Vikalpa* follows a 'verbal knowledge'.

To return to *Vritti*, this is an activity, function or act of the mind. It is not a product in which this activity culminates, although this activity and its product are intimately and essentially bound; one could say that they are indissolubly intertwined. For instance, the *Vritti* called *Anumana* is the activity, process or act by means of which the mind constructs an inference or reasoning which implies a conclusion. According to the *Samkhya*, the *Vrittis* are actually modifications of the mind, considering that the latter assumes the form of the object it perceives. This remark explains the translation of *Vritti* as 'modification'. *Nirodha* is restraint of these processes of the mind. As mentioned earlier, *Yoga* enables a practitioner to achieve this. The word *Nirodha* has also been translated as 'suppression, inhibition, restriction, hindering or controlling of these processes'.

Another widely misunderstood word is *Karma*. Belief in *Karma* has been dismissed as fatalism, but the Law of *Karma* has a far more profound connotation. From the seed comes the tree: the seed is the cause and the tree the effect. From cotton, cloth is made: cotton is the cause and cloth the effect. In all conceivable examples, the cause is like the father of a child, and the effect is like the child who is born; with reference to time, the father was obviously in existence before the child comes into existence. A cause is thus that which

was, and the effect is that which is. The past causes the present, and the present will therefore cause the future. In other words, the future is no mystery, no unknown miracle for whose stunning revelations mankind must wait. The past modified in the present alone is the future. Things to come are not ordered by a mere continuity of the past; this can never be. The freedom to modify the past and thereby create the future, for better or worse, is self-effort (*Purushartha*).

Thus, the Law of *Karma*, when correctly understood, is the greatest force of vitality. It makes us the architects of our own future. *Karma* means in practice to erase or modify the impact of *Vasanas*. *Vasana* is the tendency left in our mind as a result of our own actions. Negative tendencies are often described as *Papa*, which is generally translated as 'sin'. These tendencies become weak when we practise self-control for a time. When we have quietened our physical agitation through conscious and dedicated self-control (*Tapas*), the natural result is a growing sense of calmness. And when the mind has calmed down in this way, the pace of fluctuations created by desires and attachment is also reduced to a minimum. *Vichara* and *Viveka* are of great help in this effort.

The term *Vichara* has been translated as 'reflection, discrimination, clear vision, consciousness of discrimination' and by some scholars as 'meditation'. In our view, however, the most appropriate translation is 'analysis of subtle objects'. *Vichara* is a mental activity and, according to the express statement of Patanjali, it is an activity related to subtle objects. *Vichara* is the mental activity by which the subject brings before consciousness all the subtle particularities and constitutive parts of a subtle object. It is the making evident of the subtle aspects of an object.

Viveka is the capacity to discriminate the real from the unreal, the true from the false, the object from its shadow.

All this comes effortlessly to those who live according to *Dharma*. This term *Dharma* has been translated as “steadfast decree, statute, ordinance, law, usage, practice, customary observance or prescribed conduct, duty, right, justice (often as synonym of punishment), virtue, morality, religion, religious merit, good works”.⁸

The most popular English usage of *Dharma* is ‘religion’. But, as we have pointed out elsewhere in this work, *Dharma* is not religion. Rather, it is the intrinsic nature of every individual, animate or inanimate. To burn or to heat is the *Dharma* of fire. To wet or to cool is the *Dharma* of water. To radiate light or heat is the *Dharma* of the sun. According to the *Vaisheshika* school of Indian philosophy, that which facilitates happiness and prosperity in this life and peace in the after-life is *Dharma*.⁹

The seer-scientists blended theory and practice, analysis and action into one integral whole. The theoretical elaboration of the fundamentals of creation is *Darshana* (philosophy) and the elaboration of practical application of those fundamentals is *Dharma*. At another level, *Dharma* is the integration of idealism with realism or pragmatism. The root cause of various maladies afflicting Indian society — which could be equally true of other societies also — is the divorce between theory and practice, between the analysis of fundamentals and the application of that analysis in real life — between *Darshana* and *Dharma*, in other words.

This universe of ours is regulated in accordance with laws which are eternal and which govern all facets of the cosmos. Individuals in the universe are grouped into various *Jatis* or species, each *Jati* having some common traits. These groups are also called *Sargas*. Covered creepers, bushes, shrubs, vegetables, plants and so on fall within the *Stamba Sarga* (or *Jati*). In the *Chetana Sarga*, which is the sentient group, there

are the five species of worms, insects, birds, beasts and human beings. There are 14 species in the *Deva Sarga* or supraphysical *Sarga*. *Dharma* is that which regulates the existence of every species according to its own innate nature.

The *Dharma* elucidated in the *Vedas* is *Sanatana*, which means 'eternal'. Therefore, it is known as *Sanatana Dharma*. The seer-scientists who discovered the laws underpinning *Sanatana Dharma* did not give it a specific or distinctive name, unlike, say, Christianity or Islam. They simply referred to it as 'the eternal *Dharma*'. *Sanatana Dharma* is not a religion in the sense the word is understood in the West. *Sanatana Dharma* is not Hinduism, although those who describe themselves as Hindus may (or may not) profess allegiance to *Sanatana Dharma*.

Dharma, it bears repetition, is not religion at all. It is not a revealed message from a god or gods to humans, through a human agent or otherwise. It does not rely on a sacred book and it does not assert that all those who do not believe in that one god, that one sacred text or that one prophet are infidels.

As the name suggests, *Sanatana Dharma* is a set of practices, values, ethics, outlooks and beliefs which are eternal and durable. These have enduring strength because they are products of the encounters which human beings have had with phenomena, as well as their interaction with the cosmic forces and their experiences of nature in its broadest and deepest sense. In the course of these encounters, humans earnestly and sincerely sought to understand the beauty and mystery of mother nature. That search quickly brought them face to face with the reality that mind (or the intellect) is a woefully inadequate instrument to understand and experience the grandeur and the vast expanse of nature.

In that process, they also began to glimpse the truth

that while nature regulates and influences our thoughts and actions, there is something beyond the comprehension of the human mind which directs, influences and shapes the movements, actions and processes of the cosmos. *Dharma* seeks to discover, experience and apply that truth and apply it to establish harmony in life.

Often, the seer-scientists select a simple term, syllable or symbol to store and communicate complex and sophisticated ideas. *Om/Aum* is the most enlightening example of how this is done.



*Pranavo dhanuh sharohyatma brahma tallakshnamuchyate
apramattena veddhavyam sharavattanmayo bhavet*

“Om is the bow, the Self is the arrow and Brahma(n) its target. It is to be hit by an unerring person. One should become one with it just as an arrow (becomes one with the target).” *Mundaka Upanishad* 2:4

The universe is what we see around us. It is what we experience in life. Here the words ‘see’ and ‘experience’ are used in their widest sense to include all that can be reached by our senses, by our body, mind and intellect and the tools which augment their capacities. We ‘see’ the universe when we are awake. Philosophy generally reflects life only in this, the ‘waking state’. The seer-scientists of the *Vedas* investigated life in its totality — in all its states — and the result of their investigation is the realisation of Truth. This is nothing other than the realisation of the Self.

These great teachers of the *Vedas* take us through four states of consciousness: the waking state, the dream state,

the state of deep sleep and, finally, the fourth state known as *Tureeya*, which is the state of liberation beyond the other three states. The power of the symbol *Om/Aum* given to us by the great seers lies in the fact that it represents all these four states and thus the totality of reality.

A seeker-student, the disciple, asks whether there is in fact any fundamental single Truth behind the evanescent plurality around us cognised by experience. The teacher, the *Guru*, responds by saying that there is only one over-ruling principle behind all this plurality. Just as millions of mud-pots are all, in a sense, nothing but mud, so is there one eternal factor out of which the pluralistic world has arisen. The pots have been born from earth (clay), are sustained in earth and after their destruction return to being earth. Similarly, the pluralistic world of phenomena has no other sustenance than the Truth. Phenomena exist in Truth and they return to Truth when they are withdrawn from their state of manifestation. That fundamental Truth, the ultimate, eternal, all-pervading conscious principle, is *Om* — this is what the seeker-student is told.

Mandukya Upanishad, one of the 10 important *Upanishads*, helps the seeker-student to understand and experience this fundamental factor penetrating all states of consciousness by elaborating on the significance and meaning of *Om/Aum*.

Mandukya considers the three planes of consciousness through which we wander in life, earning our experiences, by closely observing and thoroughly studying them one by one. It points to the syllable *Om/Aum* as having four parts (waking, dream, deep sleep and the 'fourth') and as being symbolically identical with *Brahma(n)*, the Self.

"There are four states of the self. The waking state, called *Vishwa*, is mentioned first and identified with the syllable 'a' in *Aum*, the sacred symbol of *Brahma(n)*. Second

is the dream state, called *Taijasa*, equivalent to 'u'. Third is the state of deep sleep called *Prajnya* which is associated with 'm' and in which no objects are confronted. Finally, there is the fourth state, *Tureeya*, the state of liberation, which is associated with silence following the utterance of the sacred symbol."¹⁰

The name, and the object signified by the name, are one and the same. In *Mandukya*, the explanation has been given by focusing on the name, ie. *Om/Aum*.

"*Om*, the word, is all this," says the seer-scientist. By saying 'all this', he underlines the fact that all that is past, present and future is *Om*. All that was, that is, and that shall be — this means the entire world of objects cognised by our ancestors, by ourselves and by our children. The entire world has but one substratum, which is unchanging in all the three periods of time and which is represented by the symbol and name *Om*. *Om* is the substratum for all that is limited in time, and also for all that is not conditioned by it — that which is beyond even the triple concept of time.

From the waking state, we withdraw our attention and shift our awareness from the external world of objects and from the body and come to illumine the world of the mind and the intellect. We then enter the dream state. When we withdraw our attention again from the dream state and shift our awareness still further inwards to the inner world, where consciousness becomes one homogeneous mass, that condition of the wakeless and dreamless state is called the deep sleep condition. In this deep sleep state our mind is not functioning and our intellect is not extrovert. Therefore, we are not conscious of the external world of objects at all. Since we are not aware of objects, they cannot tantalise us or create any mental agitation. It is, indeed, very difficult for an ordinary person to understand the 'sleeper' within,

because to all of us awareness comes only in terms of the reports which we receive through our sense organs.

Deep sleep is a condition in which neither the organs of knowledge nor knowledge itself functions. At such a moment, when we are in a world of our own in which none of our own known instruments of knowledge are available, we seem to be generally in a strange, unknown and unknowable realm.

In this deep sleep state the consciousness within us, which is in the form of fragmented awareness during the other two states, gathers all together, illuminating nothing other than a condition which the seer-scientists have described as *Sarveshwara*, the regulator or controller of everything. Pure consciousness, in other words. This is the Lord or regulator of everything because, without this consciousness, none of us could be the vital sentient beings that we are.

Consciousness is described as 'the knower of all' because the knowledge of the waking state world or the dream state world, or even the deep sleep state, would not be ours but for the fact that this illuminating principle, this spark of Life, this pure light, is ever vibrant within us. The expression that 'he' (*Sarveshwara*) is 'the controller within' is self-evident. If consciousness were not in us, neither the sun, the moon, the stars, the entire world of objects nor the world of ideas would be there. They have existence only with reference to our capacity to be aware of them.

When this 'conscious principle' is projected out through the mind and intellect and through the sense organs, it expresses itself in the awareness of the world of objects and the world of ideas and thoughts. If this principle of awareness or consciousness is removed from a particular body, that body will no more illuminate for itself the ideas of the outside world.

The world outside and the world within arise from this pure consciousness, exist within it and, when consciousness is withdrawn, shall merge back into consciousness itself.

When the consciousness within us is projected forth through the 'prism' of the mind and intellect, we seem to acquire knowledge of the plurality in the world. If we can transcend the equipment of the mind and the intellect, the awareness projected forth from us shall merge with the consciousness that is ever-present around and about us; and we shall come to realise all-pervading reality in the names and forms. The symbol *Om/Aum*, and meditation on this symbol, place in our hands the technique by which this can be achieved. *Mandukya* tells us the result of meditation on each part of this symbol: *a*, *u* and *m*. The meditator becomes what (s)he meditates upon.

As mentioned earlier, *Om/Aum* is the symbol of the waking, dream and deep sleep states of experience, and in its soundless part it represents *Tureeya* or *Atma*. In its widest implications, *Om/Aum* includes and incorporates the vital dynamism that is functioning in the hearts of all living creatures.

One's waking state ego is identified with the 'A' letter of *Aum*, and is called *Vishva* (*Vaishvanara*.) After experiencing the world of objects, it deposits its impressions of the outer world in the mental zone, where these impressions arise in order to produce the world of dreams for the dreamer. The ego arises as a result of identification with the subtle body — called the dreamer — who revels in an inner world of subtle objects, experiencing the dream(s). This is to be superimposed upon the second letter of *Aum*, the *u*. This is identified with *Taijasa*. Just as the letter *u* is in between *a* and *m* in *Aum*, the dream state falls between the waking and deep sleep states.

Prajnya, whose sphere of activity is the deep sleep state, is *m*, the third letter of *Aum*. It is both the 'measure' and 'that wherein all become one'. One who knows this identity of *Prajnya* and *m* is able to realise the real nature of the people and things of the world, and also comprehend all within himself or herself.

In pronouncing the sound *Aum*, the letters *a* and *u* merge into the last sound, *m*; when we chant, the sound *u* seems to arise. Similarly, in the deep sleep state of consciousness, both the waking state and dream state experiences seem to fold themselves into a mass of homogeneous awareness; on waking up out of this undifferentiated mass of consciousness (the sleep state), the waking and dream states appear to emerge. The other common feature between the last syllable in *Aum* and the deep sleep state is the obvious fact that, in both, the earlier plurality and differences merge to become one whole.

The sound of the letter *a* helps the meditator to attain a well-developed waking state personality (*Vishwa*). The meditator on *u* attains a well-developed *Taijasa* (mind and intellect), while (s)he who meditates on *m* attains *Prajnya*. *Vishwa*, *Taijasa* and *Prajnya* are superimposed upon Supreme Reality, which is the fourth state known as *Tureeya* — eternal and immortal, knowledge absolute, and in essence nothing but 'bliss'.

When one *Om/Aum* chant has ended, there is a moment of blissful silence before the meditator can bring forth the next *Aum* in the series. This silent moment between the two successive *Aums* is inevitable (howsoever imperceptible it may be) when a meditator is chanting a series of them. In that silence none of our sense instruments can function, inasmuch as the sense organs cannot register any impression from silence. The mind cannot comprehend it. This soundless *Aum* is the experience of *Tureeya*.

In *Mandukya Upanishad*, the *Rishi* or seer-scientist explains to the disciple-students all the significances of *Aum* and the blessings accruing to them upon meditating upon the silence of the Infinite. This tireless effort of the great *Rishis* aims to spur disciples on to a point of meditation wherein they live at least one split moment without any reference either to their past or future. The *Rishis* attempt to make them live at least one moment of their life independently of all other periods of time. The contents of a moment comprise the contents of the Infinite.

While they are trying to capture the silence between two successive *Aum*-s, their mind and intellect become steady, sharp and single-pointed. Thus, in the seat of meditation, they begin slowly nudging themselves to the rim of Time.

Having reached this inner silence, seeker-disciples should not initiate new thought waves. They should aim to delve into that silence and remain there as long as they can, keeping the conscious mind still and steady; nothing else should be thought of.

Thoughts arise and grow only in the mind. The aim of all *Yoga* and *Sadhana* spiritual practices, followed with perseverance and patience, is to economise the production of thoughts and to control and regulate their flow in the mind. When the mind is thus made single-pointed, by continuously chanting and leaving only the *Aum* in the mental space to the total exclusion of other thought currents, the mind becomes unified therewith or absorbed into the *Aum* vibrations. When the mind is thus unified with *Aum*, the experience of *Aum* becomes the experience of *Brahma(n)*, because *Aum* is *Brahma(n)*. When the mind is unified with *Aum*, there is no particularised thought-centre in that individual, because a single-thought-mind is no mind. Where there is no mind, there is no fear. Fear, after all, is a

mental complex. (Here, fear is not meant in its limited sense of the mental emotion called fright, but incorporates all our agitations and desires, passions and hopes, all of which can be reduced to the root cause of fear.)

Another name for *Om/Aum* is *Pranava*. *Pranava* or *Aum* is the beginning, middle and end of all. Knowing this, one attains that Supreme Reality immediately. (There is a great deal of difference between the meaning conveyed by the term 'knowing' in other fields of knowledge and in *Vedanta*. Here 'knowing' means to realise, to become.)

Pranava, the symbol of *Brahma(n)* or Supreme Reality, is the Truth behind creation (*Adi*), sustenance (*Madhyama*) and dissolution (*Anta*).

One who has known *Aum* — which is soundless as well as of infinite sounds, and which is ever-peaceful because of the negation of all duality in it — is none other than the true seer according to the *Mandukya Upanishad*:

"He alone is a sage who has rediscovered himself to be nothing other than the Truth, the all-pervading and Eternal Knowledge Absolute, indicated by the sacred syllable *Aum*."

"*Om/Aum* is the bow, the Self is the arrow and *Brahman* its target. It is to be hit by an unerring person. One should become one with it just like an arrow."¹¹

Just as the bow is the cause of the arrow hitting the target, so *Om/Aum* is the bow that brings about the Self's entry into *Brahma(n)*, the imperishable limitless infinity from which all finite things arise. A person's inner self is purified by the repetition of *Om/Aum*, so that it may be anchored in *Brahma(n)* without any hindrance, just as an arrow shot from a bow becomes embedded in its target.

In its conditioned state, *Atma* enters the body, and as such is like the arrow. *Atma*, as the Self, is the witness of all modes of the intellect, and this arrow is shot at the 'target'

of *Brahma(n)*. (This 'target' is aimed at with self-absorption and deep concentration by one who is unerring, free from the error of desiring to enjoy external objects, detached from everything, in control of the senses and possessed of concentration of mind. After hitting the 'target', such a one remains identified with the 'target' like an arrow hitting its mark. In short, the meditator becomes one with the imperishable *Brahma(n)* by eliminating other distractions.)

Rishis repeatedly attempt to explain what is meant by the term 'imperishable', since this idea is not easy to grasp. "Know that Self alone is one without a second, on which are strung the earth, the interspace and beyond, the mana (mind) and the prana (supraphysical energies) together with other organs. This is the bridge leading to *Amrita*."¹² In this context *Amrita* conveys the sense of 'ever-enduring liberation', generally translated as 'immortality'. It is compared to a bridge because it is the means for traversing the great ocean of the world. The teacher or *Guru* guides the disciple, the seeker-student, to "meditate on the Self with the help of *Om*" and thus "may you be free from hindrances in going to the other shore beyond darkness."¹²



Mandukya Upanishad has only 12 *Mantras*. Because of its brevity, students experience difficulty in understanding its entire import without sufficient explanation. As a result, Shri Gaudapada, the grand-*Guru* of Shri Sankaracharya (the most revered and renowned commentator on the *Upanishads*) wrote a *Karika* (commentary) upon this *Upanishad*.

The author is grateful to Swami Chinmayananda, founder of the Chinmaya Mission Movement, for his lucid commentary on this *Upanishad*, which has informed much of this section on the meaning and significance of *Om/Aum*.

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- 1 'Individual' is used here in its technical sense and not in the sense of a person. Technically speaking, every entity is an individual. This includes objects and living beings, stars and planets, and every other thing which has an individuality or identity. But an individual is not a sum of other individuals.
 - 2 Some Western scholars have used the term 'egoity' for *Ahamkara*.
 - 3 Monier, Monier-Williams, Sir, *A Sanskrit-English Dictionary*, p. 226.
 - 4 Aurobindo, Sri, *The Secret of the Veda*, p. 12.
 - 5 Monier-Williams, *ibid*, p. 786.
 - 6 Aurobindo, Sri, *ibid*, p. 9.
 - 7 Fernando Tola and Carmen Dragonetti, *The Yogasutras of Patanjali*, p. 24.
 - 8 Monier-Williams, *ibid*, p. 510.
 - 9 *Yato abhudaya nishreyas siddhi sa dharma — Vaisheshika Sutra*, 6:1:1.
 - 10 *Encyclopedia of Indian Philosophies*, Vol. III, p. 89.
 - 11 *Pranavo dhanuh sharohyatma brahma tallakshnamuchyate
apramattena veddhavyam sharavattanmayo bhavet — Mundaka Upanishad*, 2:4.
 - 12 *Om ityevam dhyaayatha aatmaanam svasti vah paraaya tamsah parastat —
Mundaka Upanishad*, 2:6.



*chatwari wak parimita padani
tani vidur brahmana ye maneeshinah
guha treeni nihita nengayanti
tureeya wacho manushaym vadanti*

Four are the definite grades of speech;
The learned and the wise know them.
Three of these are deposited in secret;
They indicate no meaning to an ordinary person.
Men speak the fourth grade of speech,
Which is phonetically expressed.

RIK VEDA 1:164:45



CHAPTER SEVENTEEN

Word and Meaning

The Importance of Grammar in the Study of the *Vedas*



THE POWER AND LIMITATIONS OF LANGUAGE AS a means of communication present a major challenge, especially when the discovery of subtle truths and complex realities needs to be conveyed. By their keen insight, the seer-scientists of the *Vedas* discovered several elaborate methods of augmenting the power of this important tool of communication. Of several sophisticated tools created by them for this purpose, Sanskrit — the language of the *Vedas* — was a principal means of serving this objective. The seer-scientists recorded their discoveries in this language, which functions according to precise laws and rules. These will be explained in brief in this work.

HOW A WORD GROWS IN SANSKRIT

Words in Sanskrit grow from a root. A Sanskrit root is generally a monosyllable, consisting of one or more consonants combined with a vowel, or sometimes a single vowel only. It usually has one fixed and unchangeable initial letter, but its general character may be compared to a malleable substance, capable of being beaten or moulded into countless ever-variable forms. It is as if new forms are beaten out of the primitive monosyllabic ore. Prefixes and suffixes then expand these forms, while every such expanded form may be augmented by prepositions, and again by compositions with other words, and yet again by a compound of compounds, until an almost infinite chain of

derivatives is evolved. This distinctive expandability arises from the fact that the vowel is recognised as an independent constituent of every Sanskrit radical, constituting a part of its very essence or sometimes standing alone as the only root. For instance, let us take the root *Bhu*, 'to be' or 'to exist'. From this root an immense chain of derivatives grows, of which the following are but a few examples: *Bhava* or *Bhavana* — being; *Bhava* — existence; *Bhavana* — causing to be; *Bhavin* — existing; *Bhuvana* — the world; *Bhu* or *Bhumi* — the earth; *Bhu-dhara* — earth-supporter or mountain; *Bhu-dhara-ja* — mountain-born, i.e. a tree; *Bhu-pa* — an earth protector, a king; *Bhupa-putra* — a king's son, a prince; *Ud-bhu* — to rise up.

Explaining the problems he faced when preparing his *Sanskrit-English Dictionary*, Sir Monier-Williams said: "I had to bear in mind that, supposing the whole Sanskrit language to be referable to about 2,000 roots or parent stems, the plan of taking root by root and writing, as it were, the biographies of 2,000 parents with sub-biographies of their numerous descendants in order of their growth and evolution, would be to give reality to a beautiful philological dream — a dream which, however, could not receive practical shape without raising the lexicon to a level of scientific perfection unsuited to the needs of ordinary students."¹

On the other hand, he noted that the method "of treating each word as a separate and independent entity, requiring separate and independent explanation, would certainly fail to give a satisfactory conception of the structure of such a language as Sanskrit, and of its characteristic processes of synthesis and analysis."² He, therefore, chose a compromise, within which a combination of the two lexicographic methods was interwoven. While this enabled English-speaking scholars and students to read

and translate Sanskrit words, it robbed them of the experience of the vitality and dynamism of the language. With the passage of time, the true meaning began to fade and gradually disappeared. Misleading, inappropriate and finally incomprehensible ideas became superimposed on those words.

The number of distinct Dhatus or radicals given in some collections is 1750. However, since many forms with the same sound have different meanings and are conjugated differently, they are held to be distinct roots. This swells the number to 2940. Many of these Dhatus are modifications or developments of simpler elements, so that in all probability the true number of elementary radicals in Sanskrit may be reducible to a comparatively small catalogue — some linguists even postulate this as comprising no more than 120 primitive roots.

The verbal root is the core element to which proverbs, primary and secondary suffixes as well as nominal or verbal terminations are added. The systematic application of rules of coalescence between these various elements, and between words in a compound word or a sentence, bestows upon this language a unique rigour and discipline. Rules of syntax are also carefully applied, and attempts are made to identify the cementing factors that form the integral unit. The study of grammar (Vyakarana) and etymology (Nirukta) were made an essential prerequisite for an exploration of the treasures of the *Vedas*, to ensure that readers did not inject arbitrariness or speculation into their understanding of the meaning of a given formulation. Vyakarana and Nirukta, as mentioned previously, are two of the six limbs of the *Vedas*. The other four are Chhanda (prosody), Shiksha (the science of pronunciation), Jyotisha (the science of astronomy) and Kalpa (the science of rules, rites and practices).

Panini (circa 500 BC) brought the descriptive grammar of the Sanskrit language to its highest perfection in his *Ashtadhyayi*. This extraordinary work has been praised, among others, by Leonard Bloomfield, the architect of modern linguistics. He declared it to be "the greatest monument of human intelligence". Panini codified what must have been in practice for several millennia before him.

For centuries, grammarians of the various schools of thought in India have carried out studies that have produced insights into the workings of language. Their interest has not been confined to the description and analysis of a particular language, but has extended to the true nature and potentialities of language, including its role in effecting liberation. Different schools have held different positions on crucial questions pertaining to language. Nonetheless, a familiarity with the concepts, rules and traditions governing speech and language and their meaning is an essential precondition for any student who endeavours to discover the meaning of the *Veda Mantras*.

MEANING: AN INSTANTANEOUS FLASH OF INSIGHT

Just as a letter or a phoneme has no parts, so are the word and sentence to be taken as complete integral units, rather than as made up of smaller elements. In speech, communication is always through complete utterances. The speaker thinks and the listener understands the utterance as a single unit. Only those who do not know the language thoroughly will be inclined to analyse it into words and smaller elements, in order to derive a connected meaning. Those who know the language well conceive the idea and the expression as a single unit, and can express it similarly; the listener who comprehends it as a whole also gains an

understanding of the meaning as an instantaneous flash of insight. This concept is known as Sphota — the sentence taken as an integral symbol, in which its apparent parts are irrelevant to it as parts.

This is not something hypothetically assumed to explain language behaviour; rather, it is actually experienced and known through perception. The Sphota theory avers that hearing the whole sentence is the real experience, while the apparent experience of hearing the sound elements belongs only to those who do not know the language.

The importance of knowing the culture of a language is more clearly understood when we look at a verb and its functions. A verb conveys a series of operations or activities taking place in a particular temporal sequence. Thus the word 'cooks', for example, conveys the idea of a series of activities — preparing the source of heat, putting the vessel on it, pouring water in the vessel, washing the rice, putting it into the water, adjusting the temperature of the heat source, then extinguishing the source of heat, draining off the excess water, and so on. The word 'cooks' collects all these activities into a unitary, integral action, and each activity can be further analysed into a series of activities taking place in time.

Indian grammarians have discussed the concept of time and its divisions in considerable depth, because the division of time into past, present and future has a significance for grammatical usage and theory. The present continuous tense indicates an entire stretch of time from the beginning of the action until its completion. 'He is cooking' can mean that he has started cooking and the operation is not yet complete, because the present need not be momentary. Phrases such as 'the mountains are standing' and 'the rivers are flowing' indicate that they continue to stand or flow.

THE SIGNIFICATIVE POWER OF WORDS (SHAKTI)

Among Indian philosophers of grammar, there are those who consider the letter (the permanent, articulated sound-unit) or phoneme (*Varna*) to be the *Shabda* or unit of language and the meaning-bearer. They assume phonemes to be permanent and each utterance to be their realisation. To others, however, *Shabda* means the sound produced by the speaker and heard by the listener, which is impermanent; *Pada* to them means a morpheme, or meaningful unit.

According to one school, words refer to the substance or individual, while another school contends that words (including proper names) refer to *Jati*, the universal attribute. The primary meaning of a word is the universal, and the sense of the particular in a sentence is obtained either through secondary significative power or through both the universal and the particular being grasped by the same perceptive effort simultaneously. The significative power of words (*Shakti*) is based on the relationship which exists between a word and its meaning.

Since language designates things in an incomplete manner, it can choose only one of the many activities associated with an object. Hence there is some sort of permanent relationship between a word and its meaning. However, the boundaries of the meaning often change on the basis of contextual factors, not only in the case of ambiguous words but even in that of ordinary words. For example, 'man is mortal' does not mean that 'woman is immortal'. But in the phrase 'man and woman', 'man' does not include 'woman'. Even though it is accepted that every word has a primary stable meaning core, in actual practice shifts in meaning, metaphoric transfers and secondary usages are common. If there is any discrepancy in the sense when

the primary meaning is absorbed, the passage will have to be explained by resorting to the secondary meaning.

There are three conditions considered necessary for resorting to the secondary meaning. The first is inconsistency or incongruity of the words taken in the literal sense. A sentence like 'He is an ass' or 'He is a firebrand' obviously cannot be taken literally, because the human being referred to cannot be an animal nor an inanimate object.

The second condition is that the actual meaning and the primary meaning must be related in some way. This may be on the basis of similarity or a common quality, or some other relationship such as proximity. The example 'He is an ass' can be explained if the term 'ass' is interpreted as 'fool'.

The third condition for resorting to secondary significance is either sanction by popular usage, as in the case of faded metaphors, or a special purpose for which it is resorted to, as in the case of intentional metaphors.

Expectancy (*Akanksa*), consistency (*Yogyata*) and contiguity (*Asatti*) are three main factors which unify a sentence and give us a connected meaning. Mutual expectancy means that a word is unable to convey a complete sense in the absence of another word. *Yogyata*, or consistency, involves a judgement on the sense or non-sense of a sentence. If the absence of *Yogyata* (ie. inconsistency) is only apparent and can be explained away by resorting to the metaphorical meaning of a word in the sentence, there is no difficulty in understanding the sentence's meaning. *Asatti*, or contiguity, is the uninterrupted utterance or the unbroken apprehension of the words in a sentence.

Speech is purposive in nature. People use words with the intention of conveying a connected, unified sense. Hence, from the use of words in juxtaposition it is assumed that the speaker has uttered them with the intention of conveying a connected sense. Expectancy, consistency and contiguity help

in this comprehension of a unified sentence meaning, and, therefore, we can see that the sentence meaning is something more than merely the sum of the word meanings.

Significative power (Shakti) is defined as the relationship existing between a word (Shabda) and its meaning (Artha). This relationship is considered to be permanent and stable, so that linguistic discourse is possible. The function of words for conveying meaning is not restricted to this primary significative power. The binary relationship — in which it is said that every meaning has only one word and every word has only one meaning — may be an ideal in the pursuit of avoiding confusion and ambiguity. But in all natural languages there are several exceptions to this rule. Even the borders of the meaning are not always fixed, but depend on contextual factors, both situational and syntactic.

Moreover, unconscious shifts of meaning and figurative usage as well as conscious, intentional devices have made the problem of divining the true meaning more complex. In India, several sophisticated concepts have been developed to facilitate the communication of what a word seeks to convey. *Abhidha*, *Laksana*, *Gauni*, *Tatparya*, *Vyanjana*, *Bhavakatva* and *Bhojakatva* are the main functions introduced to explain the various types of meaning conveyed by speech.

Of these, *Laksana* or secondary significative power is the most important and widely used. There can be *Laksana* not only for words, but also for sentences as a whole. Secondary meanings (*Laksana*) and metaphors (*Upachara*) help language to deal with reality.

VARIOUS LEVELS OF KNOWING

The grammarians began simply with an investigation of words, of how to manipulate and acquire them. This systematic study of overt speech led to an awareness of higher

and higher levels of language until the Word Absolute, *Shabda Brahman*, was discovered. From this perspective, *Shabda Brahman* is the underlying principle of unity which makes all diversity possible.

The idea that various levels of language and knowing exist was either overlooked or misunderstood by modern scholars in their first encounters with Indian thought. A monistic hierarchy necessarily resulted, as follows: just as the phonemes are only unreal abstractions of the word, so also are words unreal abstractions of the sentence, and sentences unreal abstractions of the paragraph. Even the paragraph is not the ultimate unity, for it is a mere artificial division in the chapter of the book. At the top of this language hierarchy there is one indivisible reality within our literary self which, owing to our human ignorance or limitations (*Avidya*), can only manifest itself in such unreal forms as the book, the chapter, the paragraph, the sentence and the word. The underlying principle is that all difference presupposes a unity. Where there is difference or parts, there must be an underlying identity, otherwise the one could not be related to the other and each would constitute a word.

According to Indian scholars, the division of speech into words and letters is a convenient fiction created for pedagogical purposes, to teach words with precision and economy of effort. The basic division of sentences into words and words into bases (nouns and verb roots) with their respective suffixes is seen to be phenomenal and not ultimately real. Indian scholars offer a clear analysis of a hierarchy of levels of language. This moves from overt or *Vaikharee* speech to internal or *Madhyama* speech, with all levels being preceded logically by a more unitary stage, known as *Pashyanti*, in which there is no sequence of words but just a glimpse of the separation of word and

meaning — the intentionality of the primordial urge to express oneself. All of these concepts presuppose a unitary ground out of which distinction is manifested. It is this ground which is known as Shabda Brahman, because the approach to, and the manifestation of this Absolute (Brahman) is through words (Shabda). This philosophical analysis is not a mere logical exercise to satisfy intellectual curiosity, but an earnest and sustained spiritual approach taken to identify oneself with the ground of all speech phenomena, Shabda Brahman.

Language can be seen to operate on at least two levels. It strikes us as an inner flash (the cartoon image of the light bulb being abruptly switched on) or as the outer speaking of words and sentences called *Vaikharee Vak*. These are the uttered sounds, which combine to make up the sentence, book or other literary work. The inner idea or Sphota is aptly designated as *Pashyanti Vak*, the intuitive flash of understanding of the sentence, book or work as a whole.

Between these two levels is *Madhyama Vak*, the middle level of thought. Here the unitary idea or Sphota appears separated into its sequence of thoughts, words and phrases, none of which has yet reached the level of uttered sound. *Vak* (language) passes through these three levels whenever we speak. Shabda, which is at first quite internal, is gradually externalised for the purpose of speaking. Hearing, of course, operates in the reverse direction. Whether we are dealing with factual, scientific language or a poem which may be understood on various levels, the Sphota theory seems to provide a satisfactory explanation, because the complete continuum of cognition is covered. Knowledge, consciousness and the word are all inextricably intertwined. Once this supposition is accepted, the idea of levels of language seems logical.

LEVELS OF SPEECH

Let us now examine each level in somewhat more detail. Vaikharee is the most external and differentiated level, in which Vak, or language, is commonly uttered by the speaker and heard by the listener. Prana (breath) enables the organs of articulation and hearing to produce and perceive sounds in a temporal sequence, and may, therefore, be taken as the instrumental cause of Vaikharee Vak. The chief characteristic of Vaikharee Vak is that it has a fully developed temporal sequence. At this level a speaker's individual peculiarities (such as accent) are present, along with the linguistically relevant parts of speech.

Going further inwards, as it were, we come to Madhyama Vak or the middle level, which is associated chiefly with the mind or intellect. This is the idea or series of words as conceived by the mind after hearing and before responding through speech, so it may be regarded as inward speech. All the parts of speech which are linguistically relevant to the sentence are present here in a latent form, and at this level a variety of manifestations is possible. The same Sphota or meaning is capable of being revealed by a variety of forms of Madhyama, depending on the language adopted. Although there is no full temporal sequence of the kind experienced in spoken words, word and meaning are still distinct and word order is present. Therefore, the temporal sequence must also be present along with its instrumental cause, which is Prana. Traditional Yoga is able to demonstrate a subtle but direct connection between breathing and cognition.

The next and innermost stage is Pashyanti Vak. Pashyanti is the direct experience of the *Vākya Sphota*, or the meaning as a numenal whole. At this level there is no distinction between the word and the meaning, nor is there a temporal sequence. All such phenomenal differentiations drop away with the intuition of the pure meaning in itself.

Yet a kind of outgoing impulse or desire for expression is present at this level. This impulse is the *Pratibha* instinct, which in one sense may be said to motivate the phenomenalisation into sentences and words of the Pashyanti vision, so that communication may occur. Thus the Vedic vision of the Rishi, which in itself is Pashyanti, becomes phenomenalised so that by its uttered word human beings are able to rise above their ignorance and grasp a revelation of ultimate reality through their cognition.

Because Pashyanti is, by definition, beyond the level of differentiated cognition, it is impossible to define it in words or sentences. It occurs at the level of direct intuition and therefore must, finally, be understood through experience. Nevertheless, there has been no dearth of speculation over its exact nature and the possibility of a still higher level of language, named *Para Vāk*.

SPHOTA: THE TRANSCENDENT GROUND

Sphota may be described as the transcendent ground in which the spoken syllables and conveyed meaning find themselves united as word or *Shabda*. The original conception of Sphota seems to date back to the Vedic period. Sphota is the permanent element in the word and may be considered the essence of the word; *Dhwani* — the uttered sounds — are the actualised and ephemeral elements and are an aspect of the Sphota. The external aspect of Sphota is the uttered sound (or written word) perceived by our sense organs, which serves merely to manifest the inner Sphota with its inherent word meaning.

At first the word exists in the mind of the speaker as a unity or Sphota. When we utter it, we produce a sequence of different sounds which appear to have differentiation between them. The listener, although first hearing a series of sounds, ultimately perceives the utterance as a unity —

the same Sphota with which the speaker began — and then meaning is conveyed.

Just as an object reflected in water may seem to have movement because of the water's movement, so does the word or Sphota take on the properties of uttered speech (sequence, loudness or softness, accent and so on) in which it is manifested. The question may arise as to why this changeless whole or Sphota should ever come to be expressed in the phenomenal diversity called language. Such phenomenalisation occurs because the Sphota itself contains an inner energy which seeks to burst forth into expression. Thus the unitary Sphota is seen to contain all the potentialities for diversity, like the seed and the sprout or the egg and the chicken.

Even though the Sphota theory envisages different subdivisions of the Sphota, the famous philosopher of Sanskrit grammar Bhartrahari accepts only the sentence Sphota as the real unit of speech. Letters and words have a mere pragmatic value as useful units which build up higher units of speech, such as the sentence. The meaning of this single, indivisible utterance is Pratibha, a flash of insight, the real nature of which is indefinable. Its existence is ratified only in the individual's experience of it, and the experiencer is unable to describe it adequately.

When we perceive the universal attribute of an object, the particular and its qualities are also perceived, yet the essential cognition is of its universal quality. To put it another way, when the cognition of the whole takes place we are also aware of the parts which make up the whole, but it is the cognition of the whole that is dominant. For example, when we perceive a piece of cloth our cognition is of the cloth as a whole and is quite distinct from its particular threads and colours.

The established rule regarding the meaning of a Vedic passage, as well as of an ordinary sentence, is that the purpose to be served (*Artha*), the subject matter under discussion (*Prakarana*), an indication from another place in the text (*Linga*), its suitability (*Auchitya*), the place (*Desha*) and the time (*Kala*) all have to be taken into consideration. There are six methods of proving the meaning: Shruti or direct statement, *Linga* or implication from another word, *Vakya* or syntactic connection, *Prakarana* or context of situation, *Sthana* or position, and *Samakhyā* or the etymological meaning. Of these six, each one is stronger than the succeeding ones.

The contextual factors taken into consideration in determining the meaning of ambiguous expressions include the factors of situational context and the context within the sentence. Even to understand the purport of an essay or a text as whole, certain factors must be taken into account. The six factors for determining the purpose of a text are given thus: consistency in the meaning between the introduction and conclusion; repetition of the main topic; novelty of the subject matter; the result intended; corroborative and eulogistic remarks, as distinguished from the main theme; and arguments in favour of the main topic. The situational context — such as the speaker, the listener, the time and place, the tone, the social and cultural background — plays an important role in bringing out the suggestion of the meaning.

In many cases of language behaviour, the literal meaning conveyed by the expression is not the intended meaning, and the contextual factors play a vital role in determining the intended sense of a passage. A group of words serving a single purpose forms a sentence, if on analysis the separate words are found to have mutual expectancy. In this definition two terms deserve special attention: *Arthaikatva* (unity of purpose) and *Akanksa* (unity

of meaning). Explained in this way, contextual factors can have an extended application even to ordinary sentences.

The sentence is the unit *Sphota*, and unity of meaning is certainly necessary. We may say that in all cases there should be unity of meaning when viewed as an integral unit, and interdependence when viewed from the perspective of the parts.

THE TWO STANDPOINTS OF SPEAKER AND LISTENER

The meaning of a sentence can naturally be considered both from the point of view of the speaker and of the listener. The general Western approach has been from the speaker's point of view, while the Indian approach is principally from the listener's point of view. In normal speech there can be different aspects of the meaning of an utterance: what is in the mind of the speaker; what the speaker wants the listener to understand; and what is in the mind of the listener.

In a perfect linguistic communication, all these meanings must coincide. But often, as a result of various causes, there are differences standing in the way of easy communication. In all cases of successful misdirection, what is in the mind of the speaker at the time of utterance is different from what is intended to be conveyed to the listener. Very often what the listener understands as the meaning of the utterance is different from what the speaker intends to convey. This problem may be caused by the lack of expressive power on the speaker's part or the inability to understand on the listener's part. The intangibility of what is in the speaker's mind before speaking or in the listener's mind after hearing the utterance means that this study does not easily yield to objective scientific analysis. The actual utterance can be objectively analysed into its components of words,

morphemes and phonemes, and studied in this way. This does not mean, however, that the other aspects are less important.

Symbol and meaning are only two aspects of this speech essence. The same speech essence appears in the form of various ideas and meanings on the one hand, and their symbols — words and sentences — on the other. This constitutes the phenomenal world, and this speech essence is of the nature of consciousness. Although it is unchanging and partless, it appears to be evolutionary and pluralistic on the basis of its own powers. Time is one such power which, while really being identical with it, seems to be different. The eternal, timeless speech principle appears to be changing because of the workings of the time factor. Time is an inherent power of the absolute, but its independence on the relative level means that it exerts its influence in bringing about the other powers of the speech essence. (Thus, sequence and time do not really belong to the sentence, but are unavoidable means of revealing the meaning of the sentence.)

Having explained here some of the basic rules and laws by which Sanskrit is governed, in our next chapter we shall look more closely at the use of language by the seer-scientists, whose primary purpose was to enshrine their realisations and protect them from distortion and misapprehension.



The author has drawn upon the valuable works of several grammarians and philosophers included in the *Encyclopedia of Indian Philosophies, Vol V: The Philosophy of Grammarians*, published by Motilal Banarsidass, Delhi, India, 1990.

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- 1 Monier Monier-Williams, Sir, *A Sanskrit-English Dictionary*, Introduction, p. xiii.
 - 2 *ibid*, p. xiv.



*uta twah pashyan na dadarha wacham
uta twah shrunwan na shrunotyenam
uto twasmai tanwam vi sasre
jayewa patya ushati suwasah*

There are persons who may see with eyes,
But they do not see the source of speech.
There are persons who hear, but have no ability
To understand the deeper meaning of words.
But there are seers and sages to whom
The Goddess of Speech reveals her lovely form.

RIK VEDA 10:71:4



CHAPTER EIGHTEEN

Language and the Seer-Scientists of the Vedas



BECAUSE A WORD IS A LIVING ORGANISM, IT CAN change and grow and develop several different meanings. A special characteristic of the words used in Sanskrit, particularly in the *Vēdas*, is that they possess several layers of nuance or meaning. These meanings grow as the word changes its environment, alters location, finds new companions and comes to rest in a specific context at a particular juncture.

Let us illustrate this with a couple of examples. The word *Bindu* literally means a 'drop' or a 'point', referring to the point which forms a material entity in the universe. In this context, it also connotes semen.

Bindu describes a circle or a triangle (thought to be the symbol of the universe), while at the same time representing Supreme Reality. Bindu is not only the source, base and abode of rest, but also pure illumination and vibratory sound, expressing itself continuously in the form of concepts and objects while remaining in its pristine glory of condensed or unconditional consciousness. It also means a 'bright spark', zero and the symbol for zero which is Shunya.

Although it is a point, Bindu actually consists of a unity of two, the one static and the other dynamic. Its dynamic aspect expresses itself as the universe of multiplicity, but the base remains one — the epitome of all. Agitation occurring in Bindu causes the one to become dual and, after becoming so, it becomes plural. Symbolically, Bindu is represented as

the central point of a circle or triangle; and its corners — the meeting points of each side — are constituted of two pairs of Bindus. According to modern geometry, the point is the minutest unit with which a line is drawn. It is indivisible and without length or breadth. Although it lacks a concrete body, somehow it becomes the component unit of a physical body, either as a mass or a combination of three *Anus* (atoms).

The term Bindu — dot, point, spot, drop, semen — can be derived from the verbal root *Bid* (*Bidi Avayave*), meaning 'to cleave, to split'. According to Yaska (the author of *Nirukta*, an explanation of the Vedic texts), it is derived from the verbal root *Bhid* meaning 'to pierce', from which we derive the word and concept of 'hole'. In grammar, Bindu is used as *Anusvara*, the nasal sound which in the *Devanagari*² script is marked by a dot above the syllable.

Bindu also means *Indu*, a bright drop or a spark. In another context it carries the sense of *Avayava*, a limb, member, part, portion or component of a whole. It pre-eminently signifies the point which forms a body, describing itself as Nabhi, the navel or hub in the centre of a triangle or circle. From the Bindu, the starting point, a triangle or a circle is made manifest and this is why the point or Bindu is considered the primary source of everything, whether a physical form or a concept. According to some scholars, each Bindu consists of the unity of two Bindus; that is, the unity of two opposing energies — the static and the dynamic, the male and female principles.

Bindu is apparently neither a time unit like *Kshana* — a moment — nor a space unit like the atom or Anu. Rather, it is a unit of consciousness, which at the same time, becomes the body of the material world. It is, therefore, a synthesis of matter, space and time, shining as the very life of these elements but transcending them as the spirit.

PRAKRITI: SEVERAL LAYERS OF MEANING

Another example of a word with several layers of meaning is Prakriti.³ This word connotes the female principle and is best known as the term for the material side of the duality of matter and consciousness. "Unmanifest materiality is independent and all-pervasive; it precedes the existence of time and space and is a material transcendent principle, immensely powerful, containing the whole world in an undifferentiated state."⁴

Prakriti conveys the meaning of 'original', 'first' or 'primary', with *Vikriti* being the 'secondary'. In one aspect of its meaning, Prakriti is the material source of sounds. Tone, breath and the 'h'-sound are the material causes of the sound of syllables, in the same way as clay is the material cause of jars and thread is the material cause of cloth. In a certain context, Prakriti denotes a hierarchy of sounds played in a musical exercise.

In grammar, Prakriti means the roots and stems of words. In the Ayurvedic texts, Prakriti means the normal, ordinary pattern or the natural way; and also the nature of the person, his or her physical constitution and health. Prakriti is that subtle material power within phenomena which produces their manifest form. It is the productive aspect of nature, the inner principle which causes objects to come into being, thus denoting the innate nature of both living beings and of the world, and the material world in its totality. It expresses the correlation of the micro and macro cosmos. It is the creative material of the world, the generative principle from which the world is produced and into which it will dissolve in the eternal rhythm of death and rebirth, withdrawal and manifestation.

Prakriti is described as subtle, eternal, comprehending causes and effects, durable, self-sustained, immeasurable,

undecaying, stable, devoid of sound, touch, colour, and the source of the world. It expresses the organic metaphor of creation, on occasion being a symbol of (and perhaps an attempt to conceptualise on an abstract level) the processes in nature of growth and decay, birth and death, night and day, the seasonal change of vegetation, and so forth.

When a universe dissolves, all the embodied beings of that universe dissolve into Prakriti. Since it possesses an inherent power to produce, Prakriti is at the beginning of the process of manifestation; but it is also the subtle stage of the dissolved universe, because the universe eternally oscillates between manifestation and non-manifestation.

Prakriti is continually changing, as the unmanifest becomes manifest and the manifest becomes unmanifest once more.

STUDYING THE LANGUAGE OF THE VEDAS

These are but two examples of the nuances of meaning encompassing the truths which the seer-scientists endeavoured to express with the most unerring accuracy. They knew that they had to be vigilant in ensuring that the knowledge revealed to them did not fall into the hands of the undeserving or the impatient. The Vedic lexicon abounds in words with several layers of meaning, so that serious students must learn to establish a live connection with a word, because only then can they hope to receive a favourable response to their overtures.

Interdisciplinary understanding of a very high order is required to unravel the deeper meanings and subtle nuances of the terms used by these great sages. Translating the Vedic texts is, therefore, a daunting undertaking for Western 'experts', none of whom had or could acquire command over all the six limbs of the *Vedas*. Without such a command they could not hope to discover the true meaning of the hymns,

nor could they understand the nuances of a term in the specific context in which it was used.

Complete ignorance of the culture of the *Vedas* and a predisposition towards the Christian value system were serious handicaps for those Western translators who did attempt to render the Vedic hymns into European languages. A large number of these translators were missionaries, beginning with Heinrich Roth who was the first European to write a grammar of the Sanskrit language. Their biases are demonstrated eloquently in their attempts to translate *Shatpatha Brahmana* and those parts of the *Vedas* which elaborate the application of the basic principles of Vijnana described as practices, rites and rituals.

But neither are Indian scholars immune from this lack of understanding of the *Vedas*. As 'specialisation' grew, the tradition of devoting time and energy to the study of all the six accessories declined. The situation worsened on account of political onslaughts, cultural invasion and the ensuing social instability. Even Vyakarana became too difficult a subject for dedicated study. That this should have happened is not surprising, in view of the devastating consequences of a long spell of political turmoil and consequent social chaos.

The Rishis, or seer-scientists, enjoyed wrapping knowledge in challenging formulations. The meaning was concealed behind a veil, like the enchanting face of one's beloved.⁵ And like one's beloved, one has to court these profound and subtle meanings patiently and with sincerity. Sometimes the veil lifts slightly and one has a glimpse of the dazzling beauty lurking behind it. Only when one's commitment and devotion are guaranteed is the veil lifted fully, so that one may see the captivating charm of the meaning of life and the processes of creation, and experience the indescribable delight of sharing the mysteries of nature.

VEDA AND THE DISCIPLINE OF SOUND

The elaborate and rigorous discipline followed when chanting a Mantra occupies a crucial place in the scheme of studying the *Vedas*. Sound plays an extremely important role in the Vedic explanation of the cosmic process. Sound is a form of radiation in which energy is transferred by means of pressure waves in matter. A vibrating sound source pushes particles of matter closer together. Where there is a vibration, there is a sound. Conversely, to produce a sound the vibration corresponding to it must also be created.

The breath that passes through our *Nadis* and blood vessels during respiration produces vibrations upon which the state of our health depends. Those who keep their breathing under control through the practice of Yoga remain healthy. Breath is vital not only to the body but also to the mind. The mind as the source of thought, and supraphysical energy as the source of breath are intimately related. Healthy or unhealthy thoughts are to be attributed to different vibrations of the *Nadis*. We can notice the difference if we observe how we breathe when we are at peace and how we breathe when desire or anger quickens our mind. When we experience joy of an elevated kind the passage of breath is through the right nostril, whereas when we are enjoying sensual pleasure it is through the left. When we meditate with increasing concentration the breath passes through both nostrils slowly, evenly and rhythmically.

THE IMPORTANCE OF THE ORAL TRADITION

The *Vedas* are described as Shruti, which means 'that which is heard', referring to the fact that they were handed down orally from generation to generation, and were neither taught nor learnt from any written text. These texts could not be

written down because the sound of the *Vedas* cannot be properly transcribed. They contain sounds or phonemes which are not accurately represented in any known script. Such sounds have to be learned by listening to the teacher reciting the verses.

In addition, there are the following *Swaras* (tonal variations, proper accentuation) for *Veda Mantras*: *Udatta* (raised syllable), *Anudatta* (lowered syllable) and *Swarita* (falling syllable). Mistakes in enunciation are likely even if diacritical or other marks are used in the printed text. There is a great deal of difference in the vibrations caused by pronouncing a syllable while laying stress on it and pronouncing it without any stress. Fine-tuning is required in the intonation of *Veda Mantras*, and it is of crucial importance that there should not be the slightest mistake. Just as we receive a different station on our radio when the wavelength is changed, so is the result different when we deviate from the correct intonation of the *Veda Mantras*.

This is why the seer-scientists established and continued the practice of learning the *Vedas* by listening to them. The sages heard the 'sound of the vibrations which cannot be perceived in the normal course of events by the sense organs. Shruti is an apt name for the *Vedas* since the *Mantras* were first made known to the world after the seer-scientists had heard them.

The Vedic seers are called *Mantra-drashtas* — a *Drashta* is 'one who sees'. 'Seeing' or 'looking' does not denote merely what the eye perceives, but is a term which covers the entire range of perceptions and experiences. When we say that a man has 'seen' all sorrows in his life, the term 'seen' clearly does not imply only what he 'saw' with his eyes. It also means that which he has 'experienced'. In a similar manner, the term *Mantra-drashta* should be taken to

refer to what is perceived through experience. Thus no script is adequate to write down the sound of the *Vedas*, their Swaras. It is possible that, during deep contemplation and meditation, the Mantras of the *Vedas* appeared to the Rishis in a flash in the inner recesses of their minds.

SAFEGUARDING TONAL PURITY

A number of methods were devised in ancient times to preserve the unwritten *Vedas* in their original form and to safeguard their tonal and verbal purity. Rules were laid down to make sure that not a syllable was changed in chanting, not a Swara was altered. The time taken to enunciate each syllable of a word was fixed and this unit of time was called a *Matra*. The Shiksha, one of the six limbs of the *Vedas*, elucidates the regulation of our breathing to produce the desired vibration in a particular part of our body, so that the sound of the syllable enunciated is produced in its pure form. The similarities and differences between the Swaras of music and of the *Vedas*, and between the sounds voiced by birds and animals on the one hand and the Vedic Swaras on the other, are also dealt with in the Shiksha. Such a meticulous study ensures that the correct method is followed for the intonation of *Veda Mantras*. A remarkable method was devised to serve the same objective of making sure that words and syllables were not altered, by which the words of a Mantra are strung together in different patterns.

Some Vedic scholars are known as *Ghanapathins*. They recite the *Mantras* in depth and are proficient in chanting the verses in an advanced stage called *Ghana*. When we listen to a scholar chant the *Ghana*, we notice that a few words of the Mantra are intoned in different ways, back and forth. The sonority natural to Vedic chanting is enhanced in *Ghana* and

is more stately than the other methods of chanting. The main purpose of such methods, as already mentioned, is to ensure that not a syllable is altered to even the slightest degree.

In some forms of recitation the Mantras are chanted in their natural order and no special pattern is adopted. In one form, however, some words of the Mantras are joined in what is called *Sandhi*, an euphonic combination. Every sentence in Sanskrit is regarded as an euphonic chain, in which a break occurs at the end of a sentence. In Sanskrit grammar, *Sandhi* is the junction of the final and initial letters. This euphonic coalition causes modifications in the final and initial letters of separate words in a sentence, and in the final letters of roots and stems when combined with terminations to form such words. (In English the words are not joined together.) Because of the *Sandhi*, the *individual* words which enter into a coalition are less recognisable.

In another form, each word of the Mantra is clearly separated from the next. In yet another, the first word of a Mantra is joined to the second, the second to the third, the third to the fourth and so on, until we come to the final word. There is another form in which the first word of the Mantra is chanted with the second, then the order is reversed, so that the second is chanted with the first. Then the first word is chanted with the second once more, then the second with the third, the third with the second and the second with the third again, and so on. In this way the entire Mantra is chanted, going back and forth. In *Sikhapatha*, the pattern consists of three words of a Mantra instead of two.

Reciting and chanting Ghanapatha is more difficult than other forms of chanting Vedic verses. This method has four variations, and here also the words of a Mantra are chanted back and forth according to a well-defined system of permutation and combination. The seer-scientists devised

these methods of chanting to protect the sound of Vedic verses from change and distortion. All the different methods of chanting are meant to ensure the tonal and verbal purity of the *Vedas* for all time. In *Pada* the words are spoken in their natural order, in *Krama* two words together, in *Jata* the words go back and forth.

YOGA OF THE WORD

The seer-scientists insisted that the *Veda Mantras*, or hymns, must be memorised and recited with the correct accent and metre. In the Indian tradition, language is only fully alive when spoken. And, consistent with this oral emphasis, thinking is seen as internal speaking to which insufficient Prana, or breath, has been added to make it overt. While writing is the focus of attention for the modern West, this is regarded by Vyakarana⁶ as a mere coded recording of the oral, which can never perfectly represent all the nuances of the spoken word and is, therefore, always secondary.

The correct and clear enunciation of the Word in the here and now makes for a living language and scripture, according to the Indian tradition. Only when a passage is so perfectly memorised or internalised that it is with us wherever we go is the Word really known. In such a state the words become part of or, even more exactly, *are* our consciousness in the act of speaking. Books and all other written forms are not knowledge in this sense of the term; rather, they represent an inferior, secondary order of language.

The first requisite step is the purging of corrupt forms from our everyday language. When speech is purified by the adoption of the grammatically correct forms and all obstruction in the shape of incorrect forms is removed, the experience of well-being is the result.

A recognition that our speech needs to be purified is the first step in the Yoga of the Word — the repeated use of grammatically correct forms until the way is prepared through the lower levels of language (Vaikharee and Madhyama Vak) for the dawning of the higher vision (Pashyanti).

Incorrect usage results from attempts by men and women to change the sequencing of language to suit themselves. Without the aid of grammar and its purifying rules, a confused mental state is the usual result. The truths of the *Veda Mantras* are obscured within consciousness as a result of the traces laid down by incorrect word use. Strict adherence to grammar gradually results in the removal of these obscuring traces from the consciousness.

As the proper, non-ego-centred sequencing of language is established, the truth of the Vedic teachings can be seen and responded to. Increased power and the first glimpses of the Word are then experienced. This achievement is the truly creative function of the Word, the revelation of the nature of Reality through the reflective power of language. The repeated practice of proper word use restores to language its mirror-like quality, enabling a reflection of the transcendent Word to take place. Such a polishing and purification of the mind and its constituent word structures are the goals of the first stage of the Yoga of the Word.

The second stage occurs when we focus on the purified reflective power of the Word until union with Shabda Brahman (the supraphysical energy underpinning speech) is realised. So speech is purified in the first stage until the mind is using only correct grammatical structures. Then, in the second stage, the purging of ego attachment occurs as is essential in such purification. Giving up attachment to sequenced language, purified though it may be, implies moving from spoken words (Vaikharee) and

inner thoughts (Madhyama) to the direct (Pashyanti, Pratibha or Sphota). In this way the spiritual aspirant reaches the essence of speech, the pure luminous eternal verbum which lies beyond the vital plane. This is achieved by withdrawing the mind from our external nature and fixing it upon our inner nature, which entails the dissolution of the temporal sequence of thought activity. This leads to the attainment of the internal light and a merging with the undying and undecaying spirit, the Word Absolute.

The Yoga of the Word demonstrates that the meaningfulness of words is not merely intellectual but also spiritual. With the proper Yoga, words have the power to remove ignorance (Avidya), reveal truth (Dharma) and realise liberation (Moksha).

In Word Yoga, the repeated chanting of Mantras is an instrument of power. The more traces there are to be overcome, the more repetitions are required. The repeated use of correct Mantras removes all impurities and purifies all knowledge. Repeated chanting of the Mantras results in the perception of Sphota in all its fullness. The great Rishis or seers recognised this fact and made themselves empty channels through which the supraphysical Word could reverberate with little distortion.

This introduction to the Indian way of seeing language may help to explain why it is that sometimes when we listen we do not hear. It also teaches us how to remove the obstructions in our consciousness so that real hearing becomes possible, and suggests a different way to gain access to the ultimate wisdom of the observation.

The distinction between the word (Shabda) and the sound (Dhwani) is basic to an understanding of language in Indian philosophy. To take the physical sound as the word

is to conflate entities of two different orders, like the confusion of the soul with the body. According to Indian grammarians, the word — like the soul — has a physical embodiment in the sound and is made manifest through the latter, but the conveyance of meaning is the function of the word; the sound only invokes the word.⁷

The relationship between word and meaning is eternal, underived and impersonal. Such a relationship is not an arbitrary convention established by either man or God.

COMMUNICATING IDEAS, NOT WORDS ALONE

The Vedic seers were acutely conscious of the importance of language and of the problems of faithfully communicating intimate personal experiences. Language was examined in relation to consciousness — indeed this was the scope of their enquiry — and this was not even limited to human consciousness. All aspects of the world and human experience were regarded as illuminated by language. A semi-technical vocabulary was developed to deal with such linguistic matters as grammar, poetic creation, inspiration, illumination and so forth.

Although there was careful concern for the phenomenal or outer aspects of language, equal attention was paid to its inner aspects. Indian philosophers of language seem successfully to have avoided the two reductionist mistakes often made by Western scholars of modern language: they have neither reduced language to a mere human convention with only scientific or factual referents, nor have they erred on the side of metaphysical reductionism. To do the latter would devalue the meaning of human words to such an extent that language ends up as obscure and mystical. In classical Indian thought, the study of a particular

phenomenon and the contemplation of it as a mystery are not mutually exclusive, but are considered two parts of a systematic view of Truth.

Another aspect of the traditional Indian philosophy of language must be understood by the modern reader. Whereas the contemporary writer often thinks in terms of using language creatively, that is, to create something 'original' or 'new', the Indian conception is quite different. Indians see the correct or insightful use of language as uncovering ancient knowledge obscured by the accrual of ignorance. The Vedic seer-scientists do not produce something new out of their imagination, but rather relate ordinary things to the forgotten, eternal Truth. Thus, the study of language and correct grammatical usage are seen as 'ignorance-clearing' activities which together open the way to a direct perception of Truth.

As we have said, language is the object of study in Vyakarana. Yet all thinking about language must, by virtue of human limitation, be done in language itself. We are unable to stand outside of language in order to examine it objectively, and so it must be used to study itself from within. Vyakarana does not shun this obstacle, but relishes the challenge. It recognises that all knowledge of ourselves and of the world comes to us through language. Thus a correct and precise knowledge of language is basic to all other approaches to Reality, or *Darshanas*.

The *Asyavamiya Suookta* (*Rig Veda* 1:164) states that the ultimate abode of language (*Vach*) is Brahman, and language is described as being at the pinnacle of the universe. Three-quarters of language remains hidden in a cave, while the fourth part fashions creation. In *Rig Veda* 10:71 it is made clear that the manifestations of Brahman in language are not equally perceived by everyone. Those who have

purified themselves — namely, the Rishis or ‘seers’ — experience the full manifestation of language. Others whose ignorance obscures their minds and sense organs hear little of its fullness. The Vedic ‘seers’ are not considered to be composers of the hymns but rather to have ‘seen’ eternal Truth. In *Rig Veda* 1:164:37, language is related to the cosmic order and is understood as *Logos*, which manifests itself as both the uttered word (for use in ritual chanting) and the inner word which reveals Truth. A deeper experience of the language of the *Vedas* takes us to the basic primordial original sound — Om — from which arose all words. In fact, from that arose the entire universe. So the story of the evolution of language is the story of the evolution of the universe. This relationship is the key to understanding the *Vedas*.

In contrast to Western views of revelation, there was nothing miraculous in the manifestation of the *Vedas* to the Rishis. They ‘saw’ the divine Truth not because it was given to them by an act of grace but because they had made themselves fit, through heroic practices of self-purification, to ‘see’ the Truth directly. They then expressed it in the spoken word through the *Veda Mantras*, for the purpose of helping others still caught in ignorance to purify themselves until they, too, have a direct experience of Shabda Brahman.

Vyakarana has the unique task of keeping the *Vedas* uncorrupted so that the manifestation of Shabda Brahman remains available to all in its pristine form. Should Vyakarana fail to provide this service and allow the *Vedas* to become corrupted through sloppy usage and transmission, the possibility of realising Truth could be lost for the generations yet to come in this cycle of creation. The responsibility shouldered by the seer-scientists is, therefore, awesome in its scope and significance.

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- 1 From an article by K. A. Jacobson in *Kalatattvakosha* ("A Lexicon of the Fundamental Concepts of the Indian Arts"), Vol. III, pp. 1-47.
 - 2 Sanskrit is written in the Devanagari script, as is Hindi. Several other Indian languages are written in scripts which are a variation of the Devanagari. Most *Vedas* have been preserved in the Devanagari script in Sanskrit; however, these are also available in other Indian scripts.
 - 3 K. A. Jacobson, *ibid*, p. 1.
 - 4 *ibid*, p. 1.
 - 5 The *Shatpatha Brahmana* (6:1:1:2) says that Devatas like subtlety (*parokshapriya hi devah*).
 - 6 *Encyclopedia of Indian Philosophies*, Vol. V: "The Philosophy of the Grammarians", p. 37.
 - 7 *ibid*, p. 53.



Science has been advancing without interruption during the last three or four hundred years; every new discovery has led to new problems and new methods of solution, and opened up new fields for exploration. Hitherto men of science have not been compelled to halt; they have always found means to advance further. But what assurance have we that they will not come up against impassable barriers?

J.B. BURY in THE IDEAS OF PROGRESS (1932)



CHAPTER NINETEEN

Methods of Analysis



ONE OF THE PRINCIPAL CONCERNS OF MODERN science, most notably cosmology, is the beginning and end of the universe. Among the questions cosmology seeks to answer are the following: is the universe running down irreversibly or will it bounce back? Is the universe finite or infinite in extent and content? Is it eternal or does it have a beginning? Was it created? If not, how did it get here? If so, how was this creation accomplished, and what can we learn about the agent and events of creation? Who or what governs the laws and constants of physics? Are such laws the product of chance or have they been designed? How do they relate to the support and development of life? Is there any knowable existence beyond the recognised dimensions of the universe?

The modern mind has accepted what is called 'the scientific method' of observation, deduction, hypothesis, experiment and falsification. These considerations suggest that "not the verifiability but the falsifiability of a system is to be taken as a criterion of demarcation" between what is scientific and what is not.¹ Science claims to set rigorous standards of procedure, and places reason over irrational beliefs. However, every discovery contains an 'irrational element' or a 'creative intuition'. Einstein speaks of the "search for those highly universal laws, from which a picture of the world can be obtained by pure deduction. There is no logical path," he says, "leading to these... laws. They can only be reached by *intuition*, based upon something like an

intellectual love ('Einführung') of the experience."²

Several arguments are advanced in support of the view that the universe must have a beginning and that there must be a superior force to order the cosmological arrangement. There is the cosmological argument that, since the universe's existence is an effect, there must have been a suitable cause. The teleological argument asserts that the design of the universe implies a purpose or direction behind it, while the rational argument would have us believe that the operation of the universe, according to order and natural law, implies a mind behind it. The ontological argument is that mankind's idea of God (the God-consciousness) implies a God who imprinted such a consciousness. Last but not the least is the moral argument, that mankind's in-built sense of right and wrong can be accounted for only by an innate awareness of a code of law — and that such an awareness must be implanted by a higher being.

Einstein ultimately gave grudging acceptance to what he called "the necessity for a beginning" and eventually to "the presence of a superior reasoning power", while never accepting the reality of a personal God. Scientists continue to be divided over these questions and over the existence or otherwise of God.

The resistance to the idea of a definite beginning of the universe goes back to that first, cosmological argument: (a) everything which begins to exist must have a cause; (b) if the universe began to exist, then (c) the universe must have a cause. This argument causes some physicists considerable discomfort. But there is increasing awareness that "the words 'meaningless' or 'nonsensical' convey, and are meant to convey, a derogatory evaluation" of metaphysics by those scientists who set out "to prove that metaphysics by its very nature is nothing but nonsensical twaddle — 'sophistry and illusion'."³

An overwhelming majority of Western commentators and interpreters of the *Vedas* have betrayed a similar attitude in dismissing those portions of the Vedic corpus which they did not understand as ritualistic, superstitious and unscientific. Contrary to what these 'experts' would have us believe, the *Vedas* and their auxiliary branches of enquiry and investigation are not based on superstition and the rejection of reason. In fact, as the *Vedanta Sutra* elaborates comprehensively, every proposition is examined in five stages:

A thesis is put forward;

Doubts are raised;

An anti-thesis is formulated;

The synthesis or correct conclusion is arrived at; and

Consistency between the proposition and other propositions is ensured.

The view that the *Vedas* demand blind faith is a result of ignorance about their methods of enquiry. 'Modern' science has often accepted something as 'true' because of its practical usage in serving a human purpose. As a result, on occasions even false knowledge is perpetuated because it is 'useful'. For example, scientists have now discovered that Euclidean geometry is actually incorrect. However, it continues to be taught in schools because it serves a practical purpose and remains a very good approximation under most circumstances.

During the brief history of modern science, certain theories accepted as true for a long time were later found to be false and untenable. These theories were discarded only after their falsehood was discovered, until which time they were upheld because they were found to be 'adequate' for human beings in their day-to-day functions. Conversely, the theories propounded in the *Vedas* have remained unchanged for several millennia. The applied knowledge arising from the

principles, theories, observations and guidelines put forward in the corpus of Vedic literature — and especially by the seer-scientists of the *Vēdas* — has served humanity for thousands of years. The whole of humanity has suffered a great loss because some of the beneficial practices arising from these principles fell into disuse when the protagonists of ‘modern’ science (with the support of State power) unleashed a ruthless campaign, denigrating them as ‘irrational’ and ‘superstitious’ in the face of empirical evidence to the contrary.

‘Modern’ scientific methods contain distinct elements of arrogance and inconsistency, and the alliance of science with commerce has been the most deadly combination. As State became subservient to the commercial ‘profit motive’ and science began to serve as the willing instrument of this State–business coalition, the power at its disposal increased enormously. It has not hesitated to employ this power relentlessly, and in the process, has seriously undermined other tools of the cognisance of reality. Such tools include intuition, insights and revelations.

Rejecting and devaluing these subtler forms of observation and reflection, ‘modern’ science has sought to undermine and destroy the knowledge and skills acquired over several millennia in order to serve the vested interests of the new society. These skills and branches of knowledge are not easily reducible to commercialisation; thus it was considered necessary to destroy older knowledge and skills so that the ‘modern’ and the allegedly ‘scientific’ might thrive. Incalculable harm has been the result, both for the well-being of humanity as well as our pursuit of knowledge. However, as the limitations of ‘modern’ science and ‘technology’ come to be realised, the older, discarded and ridiculed systems are being revived.

Let us take but one example for now — the ancient form of healing and health care known as Ayurveda. India’s

age-old applied science of longevity is based on the principles enunciated in the *Vedas*. We have devoted a full section to the discussion of the philosophy, principles and applications of Ayurveda⁴ — which also exposes the hollowness of the oft-repeated assertion that ancient India was ‘spiritually oriented’ and did not concern itself with the problems of the material world. Ayurveda has served humanity for several millennia, guiding numerous generations towards a healthy lifestyle and combating and overcoming physical ailments.

As ‘modern medicine’ strove to establish its supremacy in the area of health care with the help of the increasing financial power of the pharmaceutical industry, Ayurveda was viciously denigrated as ‘unscientific’ and virtually destroyed by the promotion and practice of Allopathy. Ayurveda has only recently begun to revive and extend its area of influence. The number of adherents to this system of health care has been increasing rapidly even in the West. In the meantime, the so-called ‘scientific’ methods of Western medicine have caused premature deaths as well as physical and mental injuries.

Modern science is founded on the hope that the world is rational in all its observable aspects. But we know that what is observable now was not observable previously, because the power of observation rests on the tools of observation. Human observation is carried out with the aid of the eyes (and other sense organs) as well as technologies which enhance the power of those sense organs. Even if it is accepted that “only observation can give us ‘knowledge concerning facts’” and that we can (as Hahn says) “become aware of facts only by observation”, this awareness, this knowledge of ours (according to Popper) “does not justify or establish the truth of any statement.”⁵ To confine human encounters with reality to the limits of the present-day

powers of the sense organs would be to deprive human beings of the opportunity to realise their full potential.

Although the tools of modern science prove inadequate in the investigation of truths, some scientists continue to hold their position because, in their view, any attempt to go deeper and further has no practical value. According to the Big Bang theory, the entire universe came into existence abruptly, approximately 15 billion years ago, in a gigantic explosion. In his series of lectures entitled *The Beginning of Time*, Stephen Hawking has expressed the view that: "Since events before the Big Bang have no observational consequences, one may as well cut them out of the theory, and say that time began at the Big Bang. Events before the Big Bang are simply not defined because there's no way one could measure what happened at them."⁶ While conceding that the theory does not explain what caused the Big Bang in the first place, he dismisses the need for further enquiry because, for practical purposes, that would be of no value.

THE LIMITATIONS OF THE TOOLS OF INVESTIGATION

When investigating the true nature of reality, the seer-scientists of the *Vedas* took into account the limitations of the tools available to human beings. Reality is infinite, but the mind-body-intellect equipment at the disposal of the human agency is finite. Therefore, the seer-scientists evolved methods of augmenting the efficacy of this equipment and sharpening these tools. They 'saw' the phenomena of continuity and change in the universe and discovered their interrelationship. They also experienced the relationship between the infinite and the finite, discovering that the infinite variety in the universe arose from one fundamental principle or factor. This proposition is akin to the discovery by modern physicists that

ultimately all matter is energy. The important difference, however, is that the seer-scientists did not stop at the consideration of various forms of physical energy, but went beyond, to the domain of supraphysical energy.

The *Vedas* address a whole range of fundamental questions. How did this universe come into being? What was there before this universe was created? What will happen after it is not there? Who or what is responsible for the universe coming into being? Unfortunately, as some 'experts' began to look at the answers to these questions given in the *Vedas*, they clouded the true meaning provided by the seer-scientists with their own misinterpretations and faulty comprehension.

THE SCIENCE OF CREATION IN THE *VEDAS*

The word Ishwara appears frequently in the study of these subjects in the Vedic texts. Christian scholars have translated Ishwara as 'God', which has created considerable confusion. It has placed the *Vedas* — which are actually a systematic exploration of the nature of the universe — in the category of mysticism, spirituality, metaphysics or religion. The fact is that Ishwara⁷ is not God, in the same way as Dharma is not religion.

In the earlier chapters we noted that Atma initially has no properties. It acquires them subsequently and becomes the cause of creation. But how does this happen? And how, when the time of dissolution comes, does the whole of creation become transformed into Atma? These two processes are discussed in depth in the *Vedas* and their branches. The word 'Vidya' stands for knowledge, in the sense of scientific knowledge or science. Understanding the process of Atma becoming the universe is called *Sanchar Vidya* or *Sarga*, ie. the science of creation or manifestation. The

reverse process of the universe becoming Atma is known as *Pratisanchar Vidya* or *Pratisarga*, the science of dissolution. The first of these, then, is the science of how what was unmanifest becomes manifest, and the second is the science of how all that is manifest becomes unmanifest.

Sanchar Vidya originates from 'one', the fundamental factor of creation, and explains how variegated diversity evolves from the 'one' and how the 'one' becomes many. It observes and explores the underlying unity in the midst of the enormous diversity of our universe. Several sections in the *Vedas* dwell on the multifaceted appearances of that fundamental 'one', the underlying unit from which the fascinating and bewildering heterogeneity of our universe emerges.

In contrast, the investigation of the transformation of diversity into unity is a journey from the universe towards Atma, an excursion from the outside to the inside. It is Jnana or real knowledge, while the voyage from one to many, from Atma to the universe, from the inside towards the outside is Vijnana. The words Jnana and Vijnana are generally translated as 'knowledge' and 'science' respectively. We have used the word 'science' in the foregoing paragraphs in the sense of Vijnana. These technical terms are used in the *Vedas* to describe two different processes of arriving at the same truth.

Some scholars have translated these terms as 'philosophy' and 'science'. This does not lessen, but rather increases the confusion. We shall urge our readers to begin to internalise the Vedic terms of Jnana and Vijnana, because these technical terms have a specific connotation not conveyed by their English equivalents. The problem of cross-cultural communication is complex, and the task becomes all the more delicate when a word or a group of words seeks to express ideas which belong to two entirely different planes — in this case, the supraphysical and the physical.

THREE CATEGORIES OF KNOWLEDGE

The *Vedas* group knowledge or science in three categories:

1. The science of the material world;
2. The science of the physical world; and
3. The science of the supraphysical world.

In exploring this subject, we shall share with our readers some of the methods used by the teachers or seer-scientists to develop, sharpen and expand the faculties of their students, especially their powers of observation, analysis and interpretation.

If we want to know about a tree, we can adopt two approaches. We can start with its roots as the point of departure, and examine the properties of the trunk, branches, leaves, flowers, fruits and so on. The other approach is the reverse. We begin by analysing the fruit and then work backwards to examine, one by one, the flowers, leaves, branches, trunk and so forth, finally arriving at the root and thus completing our examination of the tree. In other words, we can begin from the microcosmic level and proceed to the macrocosmic level, or vice versa. The seer-scientists of the *Vedas* adopted both methods and have revealed to us the dialectics in the universe, the simultaneous processes of continuity and change.

CONTINUITY AND CHANGE

If we meet a friend after, say, 10 years, two thoughts arise in our mind almost simultaneously. Firstly, it strikes us that (s)he has changed considerably in those 10 years. At the same time, we know that (s)he is the same person we met a decade ago. So we encounter the elements of continuity and change at the same time. Both thoughts arise simultaneously, and both experiences occur together.

Close observation reveals that all objects change with

every moment. However, although an object is continuously changing, in some respects it remains the same. Something in it remains constant and static. The dining table we have been using for the last five years has changed as the days, weeks, months and years have passed. But it is the same dining table we bought five years ago. Tokyo, London, New York and Delhi have changed over the past 50 years; but they remain Tokyo, London, New York and Delhi. Thus every object has two components: continuous change and uninterrupted continuity.

When water changes into steam, something ceases to exist and something new is created. Water is 'destroyed' and steam is 'created'. Change implies the destruction of an existing thing and the advent of another. The seer-scientists call this *Asata*. At the same time, there is another factor which is constant and does not change. This aspect does not die but endures and remains stable. They call this *Sata*.

There was intense debate amongst the seer-scientists as to which of these two 'ingredients' of *Sata* and *Asata* is primary. A brief recapitulation of these discussions and the arguments advanced in support of various viewpoints, as recorded in the Vedic literature, reveals the sophistication of their methods of enquiry, analysis and investigation. As teachers deeply interested in the development of their students, the seer-scientists followed a method which opens up one layer of reality after another and takes us, step by step, closer to the truth.

Let us examine the two terms we introduced a little earlier, namely *Asata* and *Sata*. As we mentioned then, the ever-changing component is *Asata*, while the enduring, unchanging or stable factor is *Sata*. According to one view, *Asata* is primary. In the beginning there was *Asata*, from which *Sata* emerged. We know that cloth is made from yarn

which in turn is made from cotton. At one time we did not have the piece of cloth that we are holding in our hands now. It became available when it was made from cotton, so something that did not exist came into being.

The same analogy can be applied to this universe. At some point in time the universe does not exist. An agent could not have created it out of nothing. The question of someone creating something out of another thing does not arise, because there was nothing from which to create. Therefore, it is created from that which does not exist. In other words, it is self-created, which in Sanskrit is called *Swakrit* — that which has created itself. The renowned seer Tatteriya propounded this doctrine.

Other seer-scientists assert that Asata can never arise from Sata. Something that has an existence cannot be non-existent. Such a statement, even at face value, is impossible and untenable. Therefore, we should proceed on the hypothesis that Sata is primary. Asata arises from Sata. Only that which exists can change and be destroyed. A piece of cloth, which exists, transmutes to a state of non-existence forever when it is destroyed. According to this viewpoint, Asata is an illusion, for even that which is described as Asata exists. When we say that yarn has been destroyed, the statement contains within it the notion of the existence of the yarn. After destruction it has transmuted from one state to another, just as water which is destroyed when steam is produced transmutes to another state. Therefore, Sata is primary.

When we look around us, we could say that all of this is Sata. This universe was Sata in the past, is Sata now and will remain Sata in the future also. In other words, this universe was always here and will remain forever. Let us now reflect a little deeper and take the case of something that

exists and then ceases to exist after a lapse in time. Here is a thing, which then changes into something else. It 'is' and then it 'is not'. The statement that 'it is not' also contains the word 'is' which is indicative of existence. When something 'is', it is called Sata.

According to seer-scientist Maharshi Yajnyavalkya, both these positions are incorrect. It is wrong to say that in the beginning something exists and then it ceases to exist, that there is Sata and subsequently it becomes Asata. It is equally wrong to say that in the beginning there was Asata, from which Sata emanates. It is wrong to fix the primacy of either of these two precisely because both aspects are there at the same time. The truth is that what is Sata is also Asata. These are not two separate entities, because continuity and change are not separate.

Thus we find that the seers viewed the phenomena of continuity and change in three different ways, giving rise to three different schools of thought. Further detailed investigation led to the emergence of seven different viewpoints⁸ in regard to the doctrine of continuity and change within the framework of these three main positions; namely, (1) change is primary, (2) continuity or non-changeability is primary, and (3) neither of the two is primary. From detailed discussions of the seven viewpoints, 21 theories arose. We shall now look at the seven principal doctrines and various theories which developed within the framework of each of these doctrines.

1. DIALECTICS OF PERCEPTION:

SEER AND SCENE

(a) I look around and observe the reality that is the universe. This reality has two components, the one who sees (the seer) and what is being seen (the scene). The seer is Sata and the

scene is Asata, and they appear to be different. In the sentence "I look around", the 'I' part is Sata. The specific 'I', the person who is seeing the universe, remains the same. The 'around' part is Asata, which is changing because what that person observes continues to vary. In addition, different people observe things differently. These two together — the seer and the scene — constitute the knowledge of reality.

If we refine our exploration further, we could say that the seer is the primary component of the two. It is due to the seer's vision that the scene becomes possible. We could also say that the light emanating from the seer — the vision — shapes the scene, so that no scene may be regarded as different from the seer. In fact, the seer and the scene are the same.

(b) According to the second viewpoint, the scene is primary. The seer can be nothing without the scene. If we are unable to see the seer, we cannot describe him or her. If we say that we can see the seer, then (s)he *is seen*; there becomes a scene. In that case, how can (s)he be different from the scene? Some people say that the scene is a small portion or object, and the seer is the subject whose canvas is all-pervasive. However, if we look more closely we discover that it is erroneous to make this distinction. Some seers are more reflective and thoughtful and can see more, while others are less intelligent so that they see and know less. This is why some are far-seeing and others are not.

(c) According to the third view, both the scene and seer are different entities. The thread of knowledge (of reality) starts with the seer, and the scene is where it ends. When the two are discerned as the beginning and end, they cannot be the same. Of course, we could say that what has a beginning and end constitutes one reality and is one object. Knowledge or reality is one, but with two components.

2. DUALITY OF REALITY

(a) Nothing seems to remain the same even for a moment in our world. What we see as unchanging or constant is merely our illusion. In due course, we find that an object has become old and is no longer new. It does not become old suddenly, but continues its process of change gradually. An object comprises innumerable particles, each of which is subject to continuous change. We hardly notice this process while the change is occurring, only becoming aware of it when it has become striking.

This change reflects the activity taking place in the object; it is a consequence of motion within the object, and this motion explains why no object can ever remain in an unvarying, steady and stable state. Reality is continuous change. That which does not endure or last forever is *Asata*; if it were *Sata*, it would never have been 'destroyed'. As we noted earlier, change is the 'destruction' or 'death' of something that is there and the 'birth' of something that was not there. The appearance of coming into being even for a moment is also an illusion, since all action or motion is *Asata*. Reality, as we noted above, is in a state of perpetual change. This led some seers to assert that the whole world is *Asata*.

(b) Other seers 'saw' reality differently. According to them, whether an object is there or not is the function of thought. Objects are assumed to be of a particular type depending on the thought or idea associated with them. If we have no idea about an object — if it doesn't exist in our thoughts — then we cannot say anything about it. We really cannot say whether it is big or small or red or black, because ascribing such qualities is a function of the thought regarding that object or the idea about it. Thus the totality is nothing except thought or idea. Those who assume this world to be

an expression of action, a product of motion, are wrong because motion is continuous change and, therefore, Asata. This world was here at an earlier time, it is here now and it will be here in the future.

(c) Let us now recall our friend whom we met after some 10 years and were struck by the presence of both continuity and change in him or her. Unfortunately, (s)he is no more. We knew this person from the time of birth to the moment of death, seeing him or her as a child, an adult and an old person. We have seen the same person in three different states. However, we also know that this old man or woman is the same person we knew as a child. It is incorrect to assume that the person is the same when (s)he is not the same. It is erroneous to assume sameness when there is difference. But since this is what happens in the world, we could say that both aspects are present: sameness and difference, diversity and unity, continuity and change. That which causes the perception of sameness is Sata, and that which causes the perception of change is Asata. Every object is composed of both Sata and Asata.

3. THE INTERCONNECTED NATURE OF REALITY

(a) This is the third school, which propounds the theory that change and continuity are interconnected. They exist in tandem, parallel to each other, and there is a correspondence between the two. For example, fire and heat are interconnected. If there is fire, heat is generated. And if there is heat, fire is latent in it. After heat has reached a certain level, the object either melts and burns — as in the case of fire — or fire actually erupts. Neither can exist without the other. Similarly, Sata and Asata are interconnected or parallel. One cannot exist without the other. Asata signifies action (Kriya) and Sata signifies

consciousness (Jnana), which is also perceived as knowledge or awareness. Of the two, action is primary and awareness is an attribute or function of it. We cannot say that awareness is different from action because it arises from action; it evolves from the motion within an object.

(b) We could also perceive action as an attribute of awareness, thus rendering awareness primary. Action is there because of awareness. It is a special form of awareness and, therefore, no different from it.

(c) Change and continuity are interconnected in every object in the universe, just as awareness and action are woven together. So there is no special merit or logic in considering one or the other as primary. Each is the Atma of the other.

4. THE DOCTRINE OF EFFECT

The fourth doctrine focuses on effect, whereas the previous three doctrines focus on cause. Brahma features prominently in the exposition of this doctrine.

(a) There is both Brahma(n), the cause, and Karma, the effect, in this universe. Brahma(n) is always Sata, never Asata. This is indisputable. Karma is perceivable in both states of Sata and Asata, effect being the consequence of cause(s). The effect was not there earlier and will not be there later, but exists in the interim period for a while. Therefore, it is Sata; yet it is also Asata before it becomes discernible as effect, and it is Asata again after the effect has ceased to be. In the interregnum when it exists, it is Sata. This duality causes doubt to arise as to whether it is Sata or Asata. According to one point of view, therefore, Karma or effect is Asata even though it appears to be Sata.

(b) Another viewpoint asserts that if Karma were Asata, — ie., it had no existence — then the question of any activity or motion in it would not arise. If Karma were Asata, how

could it appear as Sata? If we find that it did exist, even for a moment, then it must be accepted that it was so before it changed or ceased to exist. In other words, it exists and then ceases to be so. It appears and then disappears, and this disappearance is called Asata.

(c) There is a third position in this doctrine. In the same manner as we have assumed Brahma(n) to be Sata, so should Karma be taken to be *Sadasata* (both Sata and Asata). This is so because the nature of objects is unique. Karma by nature is both Sata and Asata. The objection that it cannot be both Sata and Asata can be countered effectively with the observation that we see both continuity as well as change in an object. We see that the object exists and that it is simultaneously being transformed or 'destroyed' every moment.

5. THE PROPERTIES OF ATMA

Seer-scientist Yajnyavalkya expounded a different doctrine. Atma, in which the whole of creation takes place, has the three properties of Mana, Prana and Wak. Of these three, Mana is Sadasata, Prana is Asata and Wak is Sata. First Mana comes into being, followed by Prana and Wak.

The school of Asata, on the other hand, maintains that Prana comes first, and Mana and Wak are created from it. The Sata school says that Wak is first, and Mana and Prana are created from it. When all these three — Mana, Prana and Wak — define Atma, it would be wrong to try to identify which element is primary. All three are eternal and, being identical with Atma, are without beginning. From these three properties of Atma three streams emerge in the universe: the stream of knowledge (Jnana), the stream of action (Kriya), and the stream of substance (Artha). Referring to the stream of knowledge, the *Vēdas* say that in the beginning there was Sadasata, which is Mana. With respect to Bala, or the stream

of action (motion), the originator was Prana and, therefore, Asata. In the stream of substance, Wak was the originator which is Sata. (The doctrine that the universe, comprising all that is created, evolves from Atma which is the Mana-Prana-Wak triad can be understood in another way: our universe is a consequence of the interaction of mind, motion and matter; it is a product of awareness, activity and substance.)

6. THE DOCTRINE OF COMPATIBILITY

On the surface there appears to be a contradiction between the various doctrines discussed above. However, a closer look reveals that such apparent contradiction is a fallacy. All objects that exist are Sata. Yet, because they do not exist at the beginning of creation, in this respect they can be described as Asata. However, they are all made of something, which must have existence because objects cannot spring forth from nothing. Effects are not possible without a cause. Thus, there must have been some 'thing' at the beginning of creation.

We could look at this issue from another perspective: every object in the universe 'is' something and 'is not' other things. A horse 'is' a horse and a horse 'is not' an elephant. Because all objects contain both aspects of 'is' and 'is not', there is compatibility between these two factors — the 'is' and the 'is not'. This means in essence a harmony and consonance between Sata and Asata.

7. THE DOCTRINE OF AKSHARA

According to Samkhya, an important school of Indian philosophy, Purusha and Prakriti are the two fundamental principles in the making of the universe. Purusha is Sata, while Prakriti is Asata. While Purusha remains composed and is always in the same state, Prakriti is transformed into numerous forms. Prakriti can be understood as the term for

the material side of the duality of matter and consciousness. This fundamental Prakriti has also been called *Pradhana*, *Avyakta* or *Akshara*.

Prakriti as materiality is the opposite of pure consciousness (Purusha). Unmanifest materiality is independent, all-pervasive, precedes the existence of time and space and is a material transcendent principle, immensely powerful, containing the whole world in an undifferentiated state.

Samkhya adopts a consistent dualism of the orders of matter (Prakriti) and self (Purusha). The two are originally separate, but in the course of evolution Purusha identifies itself with aspects of Prakriti. Purusha is ubiquitous, all-conscious, all-pervasive, motionless, unchangeable, immaterial and without desire. The chain of evolution begins when Purusha impinges on Prakriti, much as a magnet draws iron shavings to itself. Purusha, which before was pure consciousness without an object, becomes focused on Prakriti, and out of this is evolved Mahat (the 'great one') or Buddhi ('intellect' or 'awareness'). Next to evolve is Ahamkara (the concept of 'I', the individualised ego-consciousness).

Ahamkara further divides into the five gross elements (space, air, fire, water, earth), the five fine elements (sound, touch, sight, taste, smell), the five organs of perception (with which to hear, touch, see, taste, smell), the five organs of activity (with which to speak, grasp, move, procreate, evacuate) and mind (Mana).

The three primal qualities of matter, the Gunas or 'qualities', make up Prakriti, but have further significance as physio-psychological factors. The highest Guna is Sattva, which is illumination, enlightening knowledge and lightness; the second is Rajas, which is energy, passion and expansiveness; the third is Tamas ('darkness'), which is obscurity, ignorance and inertia. Moral models correspond

to these three: that of the ignorant and lazy person to Tamas; the impulsive and passionate person to Rajas; the enlightened and serene person to Sattva.

Whenever the *Vedas* state that creation has evolved from Akshara, the reference is to Prakriti's fundamental nature. This is the interpretation according to *Asadvad*, the doctrine of the primacy of Asata. However, according to the doctrine of the primacy of Sata, when the *Vedas* attribute creation to Akshara it should be taken to mean Purusha. It is Avyakta, known by the name *Akshara Purusha*, and is Sata.

Thus we conclude our brief introduction to the seven alternative theories of Sata and Asata. These theories have been examined in great detail in the main texts of the *Vedas* and its subsidiary branches, where they are subjected to penetrating scrutiny. It is not easy to comprehend these abstractions. However, a study of these doctrines is an important part of the training of the mind in its endeavour to discover truth. The process of comprehending this endeavour and the intellectual work expended to that end help to remove doubt and confusion.

1 Karl Popper, *The Logic of Scientific Discovery*, p. 40.

2 *ibid*, p. 32 (original emphasis).

3 *ibid*, p. 36.

4 See our chapter entitled "Ayurveda: The Science of Health and Longevity".

5 Karl Popper, *ibid*, p. 98.

6 Stephen Hawking, *The Beginning of Time*, web site:
<<http://www.pbs.org/wnct/hawking/strange/html/bigbang.html>>.

7 See our chapters "Who is the 'I'?" and "Jeeva, Ishwara and Parmeshwara" for an explanation of Ishwara.

8 These seven theories are known as: 1. *Prtyayadvaita Vad*; 2. *Prakritiya Divaita Vad*; 3. *Tadatmya Vad*; 4. *Abhkarya Vad*; 5. *Guna Vad*; 6. *Samanjasya Vad*, and 7. *Akshara Vad*.



SECTION SEVEN

Distortion of Meaning

I am interested in science and in philosophy only because I want to learn something about the riddle of the world in which we live, and the riddle of man's knowledge of that world. And I believe that only a revival of interest in these riddles can save the sciences and philosophy from narrow specialisation and from an obscurantist faith in the expert's special skill and in his personal knowledge and authority.

If we ignore what other people are thinking, or have thought in the past, then rational discussion must come to an end.

**KARL POPPER: THE LOGIC OF SCIENTIFIC DISCOVERY
(PREFACE TO THE 1958 EDITION)**



CHAPTER TWENTY

The Vedas: Distortion and Misrepresentation



IT IS DIFFICULT TO SAY WITH PRECISION WHEN THE knowledge of the *Vedas* — in the real sense of the term — began to decline, and understanding of the deeper meaning of the *Mantras* became obscured. A succession of invasions of India over the past 1200 years caused much of the valuable literature on the *Vedas* and their auxiliary branches to be destroyed. The looting and burning of valuable books and the destruction of centres of learning took place repeatedly. Scholars and practitioners of the *Vedas* and associated customs and ceremonies were victims of large-scale genocide.

In addition, British and other European 'scholars' have subjected the *Vedas* to sustained and widespread distortion over the past 200 years, as alluded to briefly in our Introduction. Such distortion includes the arbitrary fixing of the date when the *Vedas* were composed. More significantly, these 'scholars' misinterpreted the subjects dealt with in this most ancient record of the intellectual attainments of humankind. Their translations of the *Veda Mantras*, for example, are a scandal of monumental proportions.

In consequence, India has suffered enormously. But the damage has affected more than just India, for as one layer of ignorance settled over another and this thick fog of distortion became covered with several coats of confusion, all of humanity was deprived of the rich knowledge contained in these texts. A strenuous and painful process of 'unlearning'

has become a necessary precondition for removing this smog of ignorance and confusion.

The distortions were a result of two clearly discernible motives: first, to serve the interests of British colonialism; and second, to lend support to the proselytising activities of Christian missionaries. The East India Company had spread its tentacles into India through deceit and fraud,¹ and subsequent attempts to consolidate the British hold over India were confronted by increasing and sustained resistance in different parts of the country. The growing resentment against economic exploitation and cultural subversion erupted in a massive revolt by the Indian people against British colonialism in 1857. However, by this time the British had launched a perfidious project of 'mind-management' in India.

Thomas Babbington Macaulay was the author of this project. The destruction of the Indian education system and its replacement with the English education system were critical elements of his plans. In a letter to his father in 1836, Macaulay enthusiastically wrote: "Our English schools are flourishing wonderfully. The effect of this education on the Hindus is prodigious... It is our belief that if our plans of education are followed up, there will not be a single idolator among the respectable class in Bengal² thirty years hence. And this will be effected without any efforts to proselytise, without the smallest interference with religious liberty, by the natural operation of knowledge and reflection. I heartily rejoice in the project."

Meanwhile, faced with the disappointing results of its proselytising campaigns, the Church became anxious to improve its understanding of the 'heathen' mind, and of Indian culture and religion. This caused a sharp upturn in the European interest in Sanskrit. A new branch of specialisation, known as Indology, came into existence and

became a favourite subject of study. Several scholars were assigned to study the languages, history, religion and life of the Indian people. This was considered necessary both for promoting the work of Christian missionaries and for consolidating the British hold over India. A large number of early Indologists were missionaries or strongly inspired by that motivation. (Early Catholic missionaries are not considered to be included in the category of 'Indologist'. Indology was born in Bengal and definitely after the Battle of Palassey.)

The East India Company found an extremely effective agent in Max Müller. It offered to fund him to the tune of one *lakh* of rupees (100,000) equivalent to approximately 10,000 pounds sterling — an enormous sum in those days — if he could undertake a translation of the *Rig Veda* in such a manner that it would destroy the Hindus' belief in the Vedic religion. Although an ardent German nationalist, the 25-year-old Max Müller took up the offer principally because he was in dire financial straits. He agreed to work for the Company for the sake of Christianity, which for all practical purposes meant the British Government of India.

As noted in our Introduction, Max Müller made three propositions: 1. The *Rig Veda*, the oldest of the *Vedas*, was composed about 1200 BC; 2. The *Rig Veda* is a work of the Aryans; and 3. The Aryans were a foreign race which had invaded India and subjugated the indigenous people. Each of these propositions is utterly false. Such falsehoods, tragically, have become part of the fabric of Indian history in many people's minds, backed up by the support of entrenched vested interests. These erroneous interpretations prevail even today.

We should not be surprised that the translations and interpretations of the 'scholars' influenced by the Max Müller

'School of Indology' are untrustworthy. Anyone who attempts to comment upon and interpret the beliefs of others without sharing them is most likely to commit errors of interpretation and to produce distortions in the meaning. Moreover, these 'scholars' had a dubious objective from the outset, which was to prove that the Hindu 'idolators' were ignorant and that their 'religious' texts were full of irrational beliefs and nonsense. We have seen in earlier chapters that the texts of the *Vedas* have nothing to do with 'religion' as it is defined and understood in the English language.

The intention to use the study of the *Vedas* for Christianisation was compounded by colossal ignorance and amazing arrogance. Max Müller was utterly confounded by the subtle and complex formulations of the *Brahmana* texts. Rather than accepting his limitations, he dismissed the passages in the text which he failed to decipher as the "twaddle of idiots, and the raving of madness".³

In actuality, the *Brahmana* texts are the closest to the original *Samhitas* and are central to an understanding of the *Vedas*. A full comprehension of the *Brahmana* texts is an essential foundation for understanding the meaning and nuances of the *Samhita*, *Aranyaka* and *Upanishad* texts.

The distortions and lack of comprehension of the *Vedas* are the logical culmination of the prejudices and contempt in which the Christian scholars of Europe have held India and her philosophical tradition. Ziegenbalg reveals this attitude eloquently: "In spite of the knowledge that there is only one single divine being, these heathens have nevertheless allowed themselves to be seduced by the devil and their ancient poets into believing in a multitude of gods, whereby they have strayed so far away from the signs of the one God that they do not know how to find their way back. The Indians no longer understood the true, lost

origins of their own religion; this is why they needed to be reawakened by Christianity.”⁴

As Halbfass points out: “The works of Henriques, Stephens and other early pioneers were meant to be practical tools for the propagation of the Christian teachings; they did not indicate any theoretical interest in Hinduism per se, nor did they provide perspectives for hermeneutic reflection.”⁵

In their efforts to propagate Christian teachings, these ‘scholars’ did not always resort to fair means. Roberto Nobili, an Italian Jesuit who has been called ‘the father of Tamil prose’ and ‘the first European Sanskrit scholar’, “has been suspected of incompetence, forgery, and charlatanry and been attacked from both the Christian and the Brahminic sides.”⁶ Nobili called upon the Brahmins to become his pupils in order to learn about the ‘lost Veda’. Halbfass records that Nobili also asserted that “the Indians should be shown that it was possible for them to accept the alien religion as a rediscovery and fulfilment of the original substance of their own tradition.”⁷

Jesuits even went to the extent of fabricating ‘Vedas’ in pursuit of the goal of Christianisation of the Hindus. Of these, *Ezourvedam* became the most scandalous. Voltaire and others cited it as a document on ancient Indian literature; it was published in 1778 and translated into German in 1779. In 1782, Sonerat declared it to be a forgery: “In 1782, it became known that the *Ezourvedam* was only one of a group of Pseudo-Vedas which had either been produced or solicited by the Jesuits in India.”⁸

Apart from the destruction wrought by military invasions, Christian priests contributed to the overall loss by taking a large number of valuable writings out of the country. J.F. Pons, a Jesuit who lived in India in the first decades of the 18th century, initiated this process in an

organised manner. Pons and several others used to collect Indian manuscripts and send them to Europe.

Any suspicion that a work presented Indian thought in a favourable light to Europeans or influenced their thinking invited ruthless censorship. A.H. Francke categorically refused to allow publication of one of Ziegenbalg's two main works, the *Genealogie der Malabarischen Gotter* (written in 1713), because "the missionaries were sent out to exterminate heathendom in India, and not to spread heathen nonsense throughout Europe."⁹ (Despite his other derogatory comments about Indians and their faith, Ziegenbalg incurred the wrath of Francke by his observation that "these heathens recognise from the light of nature that there is a God, a truth which they did not need the Christians to teach them."¹⁰) In England, the study of Sanskrit and other Indian languages as well as the production of dictionaries and other resources were often explicitly placed in the service of the proclamation of the Christian gospel. This was the case with the Sanskrit dictionary of Sir Monier Monier-Williams, which is still widely used today.

The exegesis and appropriation of traditional Indian concepts as a means for proclaiming Christianity were begun in South India and later taken up within an expanded framework by practitioners and theoreticians among both the missionaries and the colonialists.

Even when a study of Indian thought was undertaken, this was not conducted out of a belief in its intrinsic worth, but for other reasons. I.R. Ballantyne was one of the 19th century's most dedicated sponsors and organisers of the study of Indian philosophy and the co-operation with Pundits. He emphasised that he did not recommend such a study because of the 'intrinsic value' of Indian philosophy, but rather to be able to invite the attention of learned

Indians, as well as to avoid having the Christian doctrine misunderstood as a result of an insufficient consideration of the Indian context.

The strategy of interaction of the Christian missionaries with Indian religious life and thought included the idea of fulfilment. This idea held that Indian religious concepts and convictions were not to be refuted and dismissed, but led beyond their own limitations to a perfection and fulfilment which the Indians themselves were incapable of seeing without being awakened to it by the Christian missionaries.

Max Müller and, more significantly, Sir Monier Monier-Williams contributed to the popularity of this idea, although the latter subsequently denounced it as reflecting "a limp, flabby, jelly-fish kind of tolerance".¹¹

In particular, the *Upanishads* and the *Vedanta* were presented as the highlights of Indian religious thought, as a transitional stage, as a signpost on the way to Christianity and as the basis for the latter's proclamation. The *Vedanta* were envisaged as a "presentiment of Christian truth", as an allusion to the life and passion of Christ and as a preparation for Christianity. Governor-General of Bengal Warren Hastings explicitly formulated this motive when he acknowledged that "the study of the Indian tradition and conceptual world simultaneously aided in steering and controlling the Indians within the framework of their own ways of thought."¹²

Macaulay spoke of the "monstrous superstitions", "false history" and "false religion" of the Hindu texts, and asserted that all of the works that had ever been written in Sanskrit (and Arabic as well) were "less valuable than what may be found in the most paltry abridgements used at preparatory schools in England."¹³ He set a goal for the educational

system in India of enlisting a class of English-educated Indians "who may be interpreters between us and the millions whom we govern." He saw no reason to study Indian culture and history for their own sake. Max Müller welcomed Ram Mohan Roy's translations of the *Upanishads* into English as the basis for a future Christianisation of India. In 1803 Ram Mohan Roy composed a tract denouncing India's religions and the divisions among them, ridiculing them as superstition. In 1805 he was employed by John Digby, a lower company official, and through Digby he was introduced to Western culture and literature.

For the next 10 years Roy drifted in and out of the British East India Company as Digby's assistant. He sought a philosophical basis for his religious beliefs in the *Upanishads* and the *Vedas*, translating these ancient Sanskrit treatises into Bengali, Hindi and English and writing summaries and treatises on them. In appreciation of his translations, the French Société Asiatique in 1824 elected him to an honorary membership. He became interested in Christianity and learned Hebrew and Greek in order to read the Old and New Testaments. In 1820 he published the ethical teachings of Christ, excerpted from the four Gospels, under the title *Precepts of Jesus, the Guide to Peace and Happiness*.

Hegel shared this European contempt for India, as is clearly discernible in his claim — which he later modified — that there was no "real philosophy" in India, that the "freedom of the individual" which is the prerequisite of the "reality" of philosophy was never attained there, and that philosophy never freed itself from religion and mythology.¹⁴

In 1853, Marx concluded a series of articles on India with the following, more general observations: "India, then, could not escape the fate of being conquered, and the whole of her past history, if it be anything, is the history of the

successive conquests she has undergone. Indian society has no history at all, at least no known history. What we call its history is but the history of the successive intruders who founded their empires on the passive basis of that unresisting and unchanging society... From the Indian natives, reluctantly and sparingly educated at Calcutta under English superintendence, a fresh class is springing up, endowed with the requirements for government and imbued with European science. Steam has brought India into regular and rapid communication with Europe, has connected its chief ports to those of the whole south-eastern ocean, and has re-vindicated it from the isolated position which was the prime law of its stagnation. The day is not far distant when, by a combination of railways and steam vessels, the distance between England and India, measured by time, will be shortened to eight days, and when that once fabulous country will thus be actually annexed to the Western World.”¹⁵

Marxism came to have an enormous influence on a large section of the Indian intelligentsia. It is not surprising that they internalised this disdain for everything ancient in Indian history, society, philosophy, faith and ways of life and religion. This sense of self-deprecation was so strongly embedded in their minds that everything ancient in this ancient civilisation was denounced as ‘reactionary’ and everyone who indulged in this denunciation was considered progressive. The convergence of the attitudes of Christian missionaries, British colonialists and Marxist revolutionaries towards India is a most fascinating subject of study.

Some European scholars asserted that the Asian people were incapable of producing philosophy. “No Asian people... has lifted itself to the heights of free human contemplation from which philosophy issues; philosophy is the fruit of the Hellenic spirit.”¹⁶

And, again: "Philosophy, as a science, could not originate among the Nordic peoples, who are distinguished through their strength and courage, but do not have culture, nor among the Orientals, who are indeed capable of producing the elements of a higher culture but who tend more to passively preserve such elements rather than improve them through mental activity, but solely among the Hellenes, who harmoniously unite mental power and receptivity within themselves."¹⁷

The history of European understanding of India makes it abundantly clear why these scholars could not go deeper into the meaning and messages contained in the *Vedas*. Some had no intention of doing so because their brief was to present (ie., distort) them to serve the objective of Christianisation; others were explicitly recruited to aid and implement the plans of colonisation of the Indian mind. These 'scholarly' endeavours have left a lasting impact.

The European prejudice has gripped the modern Indian mind so thoroughly that it is unable to look at its own history and legacy creatively and without bias. As Halbfass so incisively points out: "Modern Indian thought finds itself in a historical context created by Europe, and it has difficulties speaking for itself. Even in its self-representation and self-assertion, it speaks to a large extent in a European idiom."¹⁸

This explains, to a degree, one aspect of the distortion and misrepresentation of the *Vedas* by Western Christian 'scholars' and their modern Indian counterparts. However, it does not fully explain why the traditional Indian scholars, who have made a significant contribution to the preservation of the *Vedas*, lost sight of the subtle and deeper messages contained therein. Let us now explore this aspect.

As a tentative hypothesis, we can say that the deterioration in the rigorous study of the *Vedas* appears to have commenced

around the epoch of the Mahabharata war which, on available evidence, took place approximately 5000 years ago. This Great War took a heavy toll on valuable lives. It also dealt a severe blow to the political-ethical-moral-intellectual structure which sustained the wholistic framework containing society as well as individual lives in India. Although scholars in the post-Mahabharata ages invested considerable time and energy in the study of philosophy, grammar, logic, astronomy, literature and so forth, a comprehensive and profound study of the *Vedas* continued to suffer.

However, the remarkable methods developed by the seer-scientists for recording and storing the *Mantras* have preserved this knowledge throughout the tumult of history and have, to some extent at least, ensured that the texts of the *Vedas* are not completely lost. In addition, a whole range of practical applications developed in accordance with the principles and theories enunciated in the *Mantras* have bequeathed to us several valuable tools by which to understand how the *Vedas* became an integral part of individual and social life.

Practices and procedures explained in the *Vedas* and their branches (especially the *Brahmana* texts) have remained in vogue. The chanting of *Veda Mantras*, often categorised as hymns, and the study of Vedic texts continued from one generation to the next, among numerous families of scholars and priests dedicated to the preservation of this ancient tradition in the face of extreme adversity. Several scholarly treatises contained valuable pointers to unravel symbols and code words used in the literature of the *Vedas*.

Over the last 2500 years some great commentators on the *Vedas* and their auxiliary branches left deep imprints of their scholarship on the minds of the people, who were agonising over their sense of directionlessness, helplessness and lack of coherence, accentuated by political setbacks and

social disorientation. These invaluable contributions made by India's traditional scholars, the Pundits and the Acharyas (great teachers), are recalled with admiration and reverence. However, the fact remains that Indian scholars had drifted away from a wholistic interpretation of the *Vedas* so that their understanding of these texts became partial and somewhat superficial.

The *Shastras* are an invaluable legacy of the seer-scientists to humanity. These are grouped under three principal headings: Shruti, Smriti and Purana. Shruti analyses the fundamentals, Smriti lays down the principles which should govern individual and social life on the basis of those fundamentals, and the *Puranas* record and describe the events, episodes and experiences which shape the cultural ambience. These together delineate Dharma, which is eternal and durable. The pursuit of Dharma ensures inner enrichment and the material and physical well-being of a person.

The meaning and the message of all the three components of Shruti, Smriti and Purana were lost to Indian scholarship because of its alienation from the real meaning of the words, phrases and formulations of the seer-scientists. The pursuit of Self-realisation became feeble and the pursuit of eternal Sanatana (eternal) Dharma gave way to rites, rituals and practices of the changing times. This process continued over a period of approximately 3000 years, giving rise to numerous problems and a deep malaise. The people of India, descendants of the seer-scientists, became restless within, confused intellectually, exhausted mentally and debilitated physically. Recognition of this bitter reality is necessary, as this alone explains why a people endowed with such rich heritage and blessed with all natural resources have suffered such ignominy over the course of the last few centuries.

The tendency in contemporary India to attribute the present state of material deprivation, physical malnourishment and political reverses to the changing times, to a preoccupation with 'spirituality' and to fate or destiny are various forms of escapism which betray an avoidance of the harsh truth. They have discouraged attempts to locate the real causes of our misfortunes. They have led to a sense of helplessness on the part of Hindus in the face of the powerful tides of the times and the equally powerful onslaught of the West.

Neither fatalism nor isolationism was the principal attribute of the Indian ethos, as several scholars have asserted latterly. In fact, the seer-scientists emphasised a judicious blend of pursuit of knowledge, dynamic efforts and material well-being.¹⁹ Ancient India's seer-scientists placed human beings at the peak of evolution and declared that none was greater than a human being.²⁰ They called upon the everyone to "direct your energies to promote the good of all humankind... Let your relations with all be characterised by love and harmony. Let your hearts beat in unison with all human hearts."²¹

There are several reasons why India and Indians declined from that peak to a state of abject self-deprecation, loss of self-esteem and of self-confidence. These have been analysed in a separate monograph by the author.²² Perhaps the most important reason is the lofty heights to which the State/ruler was assigned in Indian thought. As the Indian polity disintegrated, the support structure for the pursuit of knowledge crumbled and the struggle for survival became intense, it became increasingly difficult for scholars to pursue their vocation in a congenial atmosphere. Comprehension of the whole became weak and preoccupation with parts began to dominate. With the

passage of time, scholars became oblivious to the close link between an exploration of fundamental truths and their application in daily life. Consequently, diverse trends emerged, each of which doubtless seemed highly significant. The followers of these different trends or paths tended to overlook their deeper unity.

Thus, the tradition of comprehensive and integrated studies of the *Vedas* and their allied texts became weak among scholars who were courageously engaged in preserving and safeguarding them in the face of adversity. This was followed by a massive and sustained onslaught by Western Indologists and 'scholars'; the modern Indian intellectual class was completely swayed by this invasion, and a breach developed between them and traditional scholarship.

The task of repairing this breach is not easy, but it is of paramount importance for humankind, most notably in the context of the stalemate reached by the pursuit of knowledge in the framework of 'modern science'. The inability of physicists to find a single seamless unified theory is an eloquent indication of this stalemate. We believe that a study of the *Vedas*, undertaken with humility and without prejudice or arrogance, could advance the human quest to discover the truth of all truths.

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- 1 W. M. Torrens MP, *Empire in Asia: How We Came By It: A Book of Confessions*, 1872. This remarkable 19th-century publication, based on original letters, published and unpublished documents and speeches made in the British Parliament, chronicles the treachery, fraud, deceit, cynical and premeditated violation of treaties, breach of friendship and other contemptible means employed to establish the East India Company's rule in India. "How will our acquisition of empire in the east, and our actual position there look in the sight of those who shall come after us? How does it look in the sight of the heaven?" asks the author with horror. (p. 4) "These are not merely curious questions fit to amuse the speculative or

the idle." The author insists (p. 4) that "If public morals be a reality, and if there be such a thing as national conscience and national accountability, it behoves us, as free people, to consider how we came by the Asiatic empire. The longing for the forbidden fruit seems to be ineradicable, and few of the great names we are accustomed to recall with admiration are wholly clear from the charge. The pen that signed reluctantly, after six years [of] costly and disastrous war, the recognition of American independence traced an enlarged scheme of territorial compensation for the loss in Hindustan." (p. 7) Then follows 400 pages of vivid description of operations "which combined the meanness of a pedlar with the profligacy of a pirate." (p. 129).

- 2 A province in the eastern part of India where the British authorities had consolidated their colonial rule by that time. Later this was extended to other parts of the country, accompanied by Macaulay's education system.
- 3 "The *Brahmanas* represent no doubt a most interesting phase in the history of Indian minds, but judged by themselves as literary productions they are most disappointing. The general character of these works is marked by shallow and insipid grand eloquence, by priestly conceit and antiquated pedantry. These works deserve to be studied as the physician studies the twaddle of idiots, and the raving of madness." (Max Müller, quoted by Pandit Motilal Shastri in *Upanishad Vijnan Bhashya*, Vol. I.).
- 4 W. Caland (ed.), *Malabarisches Heidentum*, p. 43.
- 5 Wilhelm Halbfass, "India and Europe, An Essay in Philosophical Understanding", p. 38.
- 6 *ibid*, p. 38.
- 7 *ibid*, p. 42.
- 8 *ibid*, p. 46.
- 9 *ibid*, p. 47.
- 10 *ibid*, p. 48.
- 11 *ibid*, p. 51.
- 12 *ibid*, p. 62.
- 13 *ibid*, p. 68.
- 14 *ibid*, p. 135.
- 15 *ibid*, p. 138.
- 16 *ibid*, p. 152. Quotation from F. Michelis *Geschichte der Philosophie von Thales bis auf unsere Zeit* Bransberg, p. 23.
- 17 F. Überweg/M. Heinze, quoted in Wilhelm Halbfass, *ibid*, p. 153.
- 18 *ibid* (excerpt from the Preface to the original German edition).
- 19 In a subsequent volume of this work, the author discusses the

principles of individual and social life enunciated by the seer-scientists in detail.

20 *Guhyaṭ Brahma tadidam badami, na hi manushat shertshthataram him kinchit* — quoted by Veda Vyasa in the *Mahabharata*.

21 *Samaniṭvakootih samanhridayaniṭvah*
Samanamstuvomanoyarthavah suhasatihi — *Rig Veda* 8:49:4.

22 “Bharatavarsha Through the Millennia”, an essay in political and philosophical fluctuations by the author (unpublished).



SECTION EIGHT



*Before the Beginning and
After the End*



REFLECTIONS

What exactly is the beginning? And when does the end come?
More precisely, when do I come to discern a beginning?
When do I notice that the end has come?

There is nothing.

I open my eyes. It all begins.

I am in deep slumber. There is nothing.

The sleep ends, I open my eyes and it all starts.

The eyes represent all my senses. I feel the touch, the smell, and the taste. I sense the movement. Then it begins.

I am in the midst of a vast ocean. I look around. There is no end. All around is awesome endlessness.

Suddenly — far, far away — emerges the horizon. Faint glimmers, elusive glimpses. The closer I move, the further it recedes. Its limitlessness engulfs me. Then the outlines emerge. I make out the coastline and then the shore. Boundaries become discernible. What was limitless becomes limited and bounded.

There is deep darkness. There is nothing.

Is this really so?

Everything is there: men and women, children and the aged, buildings and roads, birds and animals, mountains and oceans.

I do not see them. Nor do I notice anything else.

It is all darkness. Utter darkness. There is nothing. Infinite nothingness reigns. All around there is nothing but undifferentiated homogeneity. Darkness swathed in darkness.

And then a small lamp is lighted. Dim outlines emerge. Outlines become men and women, children and the aged, buildings and roads, birds and animals, mountains and oceans. Slowly, suddenly, the variety and diversity emerge. The universe comes into being.

Consciousness marks the beginning. Consciousness of existence. Existence of objects. Consciousness of men and women, children and the aged, buildings and roads, birds and animals, mountains and oceans. As if a vacant space has been filled with numerous objects.

Consciousness is like a vast, vacant space. It contains innumerable objects. Every object is in space. Within each object there is space. The room is in space. There is space within the room.

The universe is in consciousness. Consciousness is in the universe. Consciousness is in the cosmos. The cosmos is in consciousness.

Consciousness notices and gives a name.

It detects. A form is etched.

It observes and discerns the functions.

All this — giving a name, drawing a form and noticing the functions — does not happen in that sequence. It occurs almost at the same time. If there is a form, there is a name, and if there is a name and a form it has a function. This is the triad — name, form and function. The universe comprises innumerable such triads.

Without this triad, consciousness is infinite. When triads emerge, it becomes finite. Name, form and function bring the infinite in the embrace of the finite. Each triad is finite. Altogether, submerged in oneness, they are infinite.

Words are finite and finite words cannot fully express the infinite. So we take recourse to examples. We give illustrations. We attempt to point out an aspect or two. We seek to define.

The infinite, in its totality, is indefinable.

In what does this piece of cloth exist? Does it have an existence other than the thread? If we were to remove all the threads, where would the cloth be? Cloth is a pattern in which the threads are arranged. But for the thread, there would have been no pattern. Names and forms and functions make the pattern.

What is there before the names and forms? There is nothing. What is nothingness? We do not know. A state represented by the 'negation' of all-physical attributes? Even less than a vacuum? A vacuum can still possess dimensionality and extension. Nothingness would have no extension, no structure. It is the essential principle which becomes a name, attains a form and gains various functions. It smells. It can be touched. It can be seen. It can be experienced. From nothing emerges something, all things.

There is this vast limitless ocean. Still. Tranquil. Without a ripple. Without any movement. Without even the slightest disturbance. Silent. Quiet. As if it is not there. It is not noticeable. It is not discernible. It is not describable.

Then there is a slight, a very slight disturbance. There is just a bubble. A very tiny bubble. There is a beginning. A delicate beginning. Then another bubble. Then yet another. One bubble clashes with the other. There is more movement. A new entity emerges. The bubbles multiply. Their interfaces continue. New entities emerge. The process continues. Where there was nothing, the cosmos comes into being.

Words are finite and finite words cannot fully express the infinite. Before the words, there is silence. Absolute silence. Unlimited silence. Then there is sound. It surfaces and fades. It is born and then dies. It begins and ends. What was unlimited becomes limited. Infinite becomes finite. There is a beginning and there is an end.

What is there when there is nothing? What is there before the first bubble in the vast limitless ocean? What is there before the first ray pierces the unbounded darkness? What is there before the first triad? What is there before the first finite object emerges? Words are finite and finite words cannot express fully the infinite.

I am finite. I am also the infinite. I close my eyes and look within. There is the vast limitless sky. Innumerable objects float in that firmament. In the limitlessness within my limited being I travel long distances, meet numerous people, go into the past and run into the future, live in the present. There is the infinite within the finite. Remove the finite and there is the infinite. Consciousness is the infinite sky. In that blue heaven innumerable finite objects float. Words are finite and finite words cannot fully express the infinite.

I am in deep slumber. There is nothing. I do not exist. There is a slight commotion, a very slight commotion. A tiny bubble in the limitless infinite ocean. I begin to dream. I create a universe. In that universe, I meet friends and enemies. I run and shout. I love and quarrel. I am happy and in pain. I laugh and cry. I become rich and I become destitute. I am on the top of a mountain and I am sailing in a river. There is further disturbance. The dream is shattered. The universe vanishes. There is a beginning. There is the end. There is infinite nothingness

before this beginning. There is infinite nothingness after this end. Words are finite and finite words cannot fully express the infinite.

I am born and I grow. I play and I read. I argue and I love. I make friends and enemies. I fly in the air and cruise in the sea. I am happy and I am depressed. I become strong and rich. I become poor and weak. I grow old and I die. There is a beginning and there is an end. What is there before the beginning? What is there after this end?

There is a rhythm in the universe. The planets move regularly. The stars ride their appointed paths. Everywhere, there is the Law of Rhythm. Everything conforms to that law.

Nothingness is zero — *Shunya*. It is infinity. Add zero to zero. It remains zero. Subtract zero from zero. It remains zero. Add infinity to infinity. It is infinity. Subtract infinity from infinity. It remains infinity. This infinity becomes finite and marks the beginning. Every finite object ultimately is subsumed in the infinite. It marks the end. A bubble arises in the ocean. It marks the beginning. Bubbles are subsumed in the ocean. It marks the end. For the bubble, the ocean remains as it was. Infinite and still, before the beginning and after the end.

There is a flicker in the eyes and the universe opens up. The eyes close and the universe vanishes. It is there before the eyes open. It is there after the eyes close. I am born and my universe begins. I die and my universe ends. It is there before I am born and it is there after I die.

There is a beginning and there is an end. There is something before the beginning and something after the end. There is infinity before the finite and there is infinity after the finite.

This is Truth. This is Reality. This is the limitless ocean, still and tranquil. This is *Brahma*.

Brahma desires. It is *Mana*.

Mana moves. This is *Prana*.

The first bubble emerges. This is *Wak*.

This is the silence before the first sound.

This silence is bliss. Infinite bliss.

We experience infinity as *Sat*, *Chit* and *Ananda*: Truth, Consciousness and Bliss.

Before the beginning, there is nothing. Nothing is the negation of physical entities. It is the universe of supraphysical energies. These are the first stirrings. They come into motion spontaneously. They cause the beginning (of the physical universe). After the end (of the physical universe), they subsume everything. The waves arise in the ocean. This marks the beginning. The waves vanish in the ocean. This marks the end. There is ocean before the beginning. There is ocean after the end.

Rishis tell us what is before the beginning. They tell us what is after the end. They tell us that there is no beginning and there is no end. They take us into the supraphysical universe. They help us float in that limitless sky within us. They bless us with that little light (of knowledge) which causes the flicker that opens our eyes. They guide us into the world of light.

I go back in time to the beginning. The whole universe is reduced to a speck. Matter, energy and space disappear. With the vanishing of these three, time also disappears. There is neither a beginning nor an end.

Words are finite and finite words cannot fully express

the infinite. But consciousness is infinite. Therefore she can experience the infinite. How do I communicate this encounter? I etch the happening as *Vishnu*. Resting in the midst of an ocean (infinity), lying on the bed of a coiled serpent (the frightening turbulence of the physical universe) with his consort *Lakshmi* by his side (the female complementarity).

I sketch consciousness as an enthralling goddess; a finite figure on the limitless canvas of infinity. A sculptor carves her in stone. A painter draws her on the walls of a cave. These are efforts to convey the incommunicable. Ecstasy captured in a poem. Infinity secured in finiteness. The limitless sky caged within the confines of my mind. Indescribable beauty imprisoned in an image.

Love expressed in silence.



SECTION NINE

Appendices



Vedic Aryans and the Origins of Civilization

BY NAVARATNA S. RAJARAM AND DAVID FRAWLEY

*The construction of Indian history by Western experts, historians and anthropologists has been subjected to close scrutiny during recent times. This scrutiny has revealed that, in their anxiety to serve the interests of colonial rulers, these historians invented facts generously and distorted the truth to suit the colonial design. In the interpretation of the Vedas and related literature, this distortion has caused havoc. Combining the two streams of distortions — historical and literary — the Encyclopaedia Britannica (1996) puts forward the proposition that “The Veda is the product of the Aryan invaders of the Indian subcontinent and their descendants, although the original inhabitants (disdainfully called *dāsyus*, or “slaves” in the Veda) may very well have exerted an influence on the final product.” [emphasis added]*

In Vedic Aryans and the Origins of Civilization: A Literary and Scientific Perspective, Navaratna S. Rajaram and David Frawley refute these theories and offer revolutionary alternatives. According to them, “Massive evidence available today (from archaeology, geology, satellite photography and a more adequate understanding of ancient literary documents) disproves most of the assumptions on which the Aryan-invasion theory and the chronology of early Indian literature was based. It is possible that not all of the conclusions, though drawn from factual evidence, will hold up to critical re-examination. But it seems certain that little, if anything,

of the earlier theories can be maintained in the shape and form found in textbooks.”

The authors also assert that: “With the benefit of hindsight, it is clear that what the colonial-missionary model embodies is not the scientific method so much as the theological approach. While the language of this school often bristles with technical terms — especially from philology — its goals and methods bespeak a theological orientation. They are devoted not so much to learn the truth about Indian history and civilization as to present and justify a particular belief system through selective manipulation of data. This is the method of theology, not science.”¹

In this Appendix, we supply excerpts from this ground-breaking work to help our readers understand the background to the distortions imposed upon the Vedas by Western experts and Indologists. Unfortunately, this pernicious influence has also shaped the minds of the Indian intellectual class over the past 200 years. The process of undoing the consequences of the most elaborate brainwashing in the history of mankind has just begun.

As a consequence of a century and a half of European colonialism, and repeated extremely violent onslaughts going back nearly a thousand years, Indian history and tradition have undergone grievous distortions and misinterpretations.



Albert Einstein in what proved to be the last interview he gave, to R.S. Shankland, expressed his frustration over the inadequacy of historical writing, particularly with those writing about science. The problem, as Einstein saw it was:

Nearly all historians of science are philologists and do not comprehend what physicists were aiming at, how they thought and wrestled with these problems. (Miller 1981: p.1)

Concurring with Einstein, Shankland wrote: "A means of writing must be found which conveys the thought processes that led to discoveries." (ibid) After all, no less a scientist than Max Planck — the discoverer of Quantum Theory — is known to have remarked that only death can separate people from their long held beliefs.



It was Max Müller more than anyone who is responsible for the fiction of the Aryan invasion theory and the absurdly late Vedic chronology — the dating of the *Rigveda* to 1200 BCE. Under pressure from critics he later disowned his chronology admitting: "Whether the Vedic hymns were composed in 1000, 1500 or 2000 or 3000 B.C., no power on earth will ever determine." It is worth noting, however, that in his Vedic chronology, he was strongly influenced by the then current Biblical belief that the creation of the world took place at 9:00 AM on October 23, 4004 BCE!



By late eighteenth century, the British had found themselves with increased administrative responsibilities in India which required them to become better acquainted with Indian history, literature, law and tradition. And this led them naturally to the study of Sanskrit. One of the first was Sir William Jones (1746–1794), a true scholar and gifted linguist, who began his study of Sanskrit in 1784 with the help of the Hindu scholar Pandit Radhakant (not to be confused with Max Müller's friend Raja Radhakant who came much later). Jones soon noted remarkable similarities between Sanskrit and European languages like Greek and Latin. He became a great

admirer of Sanskrit noting: ...the Sanscrit language, whatever be its antiquity, is of wonderful structure, more perfect than *Greek*, more copious than *Latin*, and more exquisitely refined than either. (Jones 1806: p. 420; original emphasis)

He went on to establish the Royal Asiatic Society and is rightly regarded today as the founder of the field of Indology. He was soon followed by his assistant Sir Henry Thomas Colebrooke (1765–1837), the greatest of the early Indologists. But they were not the first modern Europeans to note the similarities between European languages and Sanskrit. That honor belongs probably to Filippo Sassetti, a Florentine merchant who after a five year stay in Goa (1583–88) asserted that there was a definite connection between Sanskrit and European languages.



For the British still reeling from the shock of the 1857 revolt, the idea that the divided people of India might also unite under the Brahmins, was a recurring nightmare. Even well before the 1857 uprising, it was widely recognized that the British rule could not last a single day if the people of India were to unite under any sort of a cause. Just as the French had sought to secure themselves by keeping the German people divided, the British saw a divided India as offering the best hope for the survival of their Indian Empire. They also knew that the Brahmins were the only people who, as a group, commanded the respect of all the communities across the length and breadth of India; most other castes like the Marathas, the Rajputs, the Reddis and others are regional.

In this concern, the missionaries with their proselytizing interests found it very much in their interests to join hands

with the government. And this soon led to an avalanche of European missionaries also studying Sanskrit. Upon examining the roster of Indologists of the period, one is struck by... how many of them came from a church background. The very strong anti-Brahmin bias that dominates much of nineteenth century writing on India, and even today, must be attributed at least in part to the political and missionary interests of the era.

Though the Brahmin community of the period was hardly free from blame, it was not the unmitigated evil that the British authorities and missionaries portrayed it to be. If it was conservative and even reactionary, like the Japanese *Samurai*, it also took the lead in the social, educational and cultural reforms in the nineteenth century known as the Indian Renaissance. Then there is the preservation of the Vedas and other ancient works towards which the much maligned Brahmins made an invaluable contribution. And thanks to this monumental effort of preservation, we are now in a position to reconstruct the history of the ancient world.



Thomas Babbington Macaulay's (1800–1859) influence is still felt in higher education in India. He introduced two things into Indian education: English language, and a Eurocentric, and even a Christian, bias. Macaulay believed that the spread of Christianity would greatly help in the administration of India... Indians took readily to English education, and Macaulay mistook this Indian intellectual curiosity and capacity for assimilation for religious enthusiasm. In a letter to his father in 1836, Macaulay enthusiastically wrote:

Our English schools are flourishing wonderfully. The effect of this education on the Hindus is prodigious... It is our belief that if our plans of education are followed up, there will not be a single idolator among the respectable classes in Bengal thirty years hence. And this will be effected without any efforts to proselytise, without the smallest interference with religious liberty, by natural operation of knowledge and reflection. I heartily rejoice in the project. (Macaulay 1876, I: pp. 398-99)

The interesting point here is Macaulay's belief that "knowledge and reflection" on the part of the Hindus, especially the Brahmins, would cause them to give up their age old belief in favor of Christianity.

Macaulay's agent in this grand enterprise was to be Max Müller, though it was not until 1854, nearly fifteen years after his return from India, that Macaulay could get his plan together and fully financed. He told Max Müller that the East India Company would be prepared to fund him to the tune of one lakh of rupees or about pound 10,000 — then an enormous sum — if he could undertake to translate the *Rigveda* in such a manner that it would destroy the belief of the Hindus in the Vedic religion. Though an ardent German nationalist, Max Müller agreed for the sake of Christianity to work for the Company, which for all practical purposes meant the British Government of India. And this was the genesis of his great enterprise — the editing of the *Sacred Books of the East* — that was to propel the then relatively obscure Max Müller to the position of being regarded the Western Sanskritist of the century, if not of all time...

Writing about his translation of the *Rigveda* to his wife in 1866 he observed:

...this edition of mine and the translation of the Veda, will hereafter tell to a great extent on the fate of India and on the growth of millions of souls in that country. It is the root of their religion and to show them what the root is, I feel sure, is the only way of uprooting all that has sprung from it during the last three thousand years. (Max Müller 1902, I: p. 346)

Max Müller, though a scholar, was an agent of the British Government paid to advance its colonial interests. This, in no way, diminishes his monumental contribution; but it does place a solemn responsibility on modern students to recognize the circumstances, and be aware at all times of the biases and political factors that shaped his interpretations of the Vedas and other Indian works. Many modern historians have failed to do so, just as they have failed to recognize his serious ignorance of science.

These two crucial points about nineteenth century scholars — strong religious beliefs and poor or non-existent scientific background — can never be lost sight of in studying any of their work... these often led them to wholly erroneous conclusions about astronomy and mathematics. In Max Müller's case, this was further complicated by his pressing need for sponsors in England for his ambitious plans and his emotional involvement with German nationalism...

It was Max Müller as much as anyone who is responsible for giving the word 'Aryan' a racial meaning that... is not there in the original Sanskrit. Though he shifted his position later claiming it to be a linguistic concept, there is ample evidence that he, like many others in his time, did use the word 'Aryan' in the racial sense. In fact he introduced his famous approach to interpretation of the *Rigveda* with the words:

“...As long as man takes an interest in the history of his race, and as long as we collect in libraries and museums the relics of former ages, the first place in that long row of books which contain the records of the Aryan branch of mankind will belong for ever to the Rigveda.” (RS, Vol. I, p. 2)

It cannot now be seriously argued that Max Müller *never* used the word Aryan to mean a race. However, unlike most German romantics and nationalists, he as a Sanskrit scholar was fully aware that in Sanskrit, *Arya* does not refer to any race. Through his misuse of the word ‘Aryan’ he was conferring a sort of legitimacy on the usage by appealing to the Vedas as authority — a usage for which, as he well knew, there is no support in the Vedas. While it would obviously be absurd to hold him in any way responsible for the Nazi horrors, in his eagerness to popularize the usage (and himself) he was committing the grave sin of giving scriptural sanction to the worst prejudice of his or any age. In this, Max Müller, as a distinguished scholar of Sanskrit and of the Vedas, bears a heavy responsibility. It is something that may be forgivable in an ignoramus, but not in a scholar of his stature.

Then, shortly after the Franco-Prussian War in 1871 he abruptly changed his stand. In 1872, speaking at a university in German occupied France (Strasbourg), Max Müller stated his new doctrine that the word Aryan could only mean a family of languages that included Sanskrit, Greek, Latin, Avestan and others, and could never apply to a race. To understand this extraordinary *volte face* it is necessary to study the political developments in Europe. 1871 was the year of German unification following Prussia’s victory over France in the Franco-Prussian War. Just as he had been using the

word in the racial sense for twenty years until 1871, for the next thirty years he was insistent that the word Aryan could only refer to a language family or culture but to little or no avail. He could not contain the devil that he himself had let loose. He became uncharacteristically adamant about it, finally bursting out in 1888:

“I have declared again and again that if I say Aryan, I mean neither blood nor bones, nor skull nor hair; I mean simply those who speak the Aryan language... To me an ethnologist who speaks of Aryan blood, Aryan race, Aryan eyes and hair is as great a sinner as a linguist who speaks of a dolichocephalic dictionary or of brachycephalic grammar.”
(Max Müller 1888: p. 120)



The Vedas represent the largest literacy record we possess from the ancient world. The *Rigveda* itself, the oldest Vedic text, consists of 1017 hymns and over 10,000 verses. The four Vedas and their related Brahmanas, Aranyakas and early Upanishads — which are dated by all scholars as pre-Buddhist or before 500 BCE — consist of over five thousand pages of material. The related literature of the twenty Brahmanas and the great epics, the *Ramayana* and *Mahabharata*, along with the Sutra literature, also contain much of an earlier period and traditions that are at least in part pre-Buddhist. This post-Vedic, but still ancient literature, is larger yet than that of the Vedas themselves...

Vedic Sanskrit is a complex poetry done in precise metrical forms. It has been preserved along with the correct accent and pronunciation for at least three thousand years. Sanskrit itself is one of the most refined and cultured

languages in the world, and has been today regarded by some as the ideal language for computers because of its lack of ambiguity.

(Then there is the further paradox of the sciences. The proponents of the Aryan invasion tell us that geometry and astronomy were borrowed by the Indians from the Greeks following Alexander's invasion of India. But the so-called Indus (Harappan) sites from Mohenjo-Daro, Harappa and many others show that the inhabitants must have been quite adept at geometry and basic arithmetic. From time immemorial, town planning with carefully laid out streets and drainage systems has been the hallmark of the Hindu city. The world had to wait some two thousand years, until the Roman Empire, before town planning and sanitation attained the same levels as in Harappan cities. How could this be possible if Indians knew no geometry before Alexander? Where did the mathematics needed for all this come from?)

In his monumental paper, 'The Origin of Mathematics', the distinguished American mathematician and historian of science, the late A. Seidenberg, noted the existence of two quite distinct traditions in ancient mathematics; the algebraic or the computational, and the geometric or the constructive. As he observed:

"If it could be shown that each of these has a single source — and there are many rather familiar facts that suggest this is so — and if, moreover, in both cases the sources turn out

to be the same, it would be plausible to claim we have found the unique origin of mathematics.” (Seidenberg, 1978: p. 301)

And in what was the culmination of nearly twenty years of epoch making research, Seidenberg did go on to trace this unique original of mathematics to a class of late Vedic texts called the *Sulbasutras*. While his primary interest lay in the origin of mathematics, he also indirectly established that the Sutra literature — which... comes at the end of the Vedic Age — had to precede the mathematics of both Old-Babylonia (1700 BCE) and of the Egyptian Middle Kingdom (2050-1800 BCE).

The word Sutra literally means ‘string’, and Sutra works like Panini’s towering masterpiece *Astadhyayi*, are composed in the form of a string of short statements, no doubt to facilitate memorization. (It is also possible that they were ‘formulas’ as in modern mathematics, the keys to which have been lost in the intervening millennia.) These cryptic statements, or *sutras*, are usually described as ‘aphorisms’ by modern scholars, but the term ‘principles’ (or ‘formulas’) comes closer to the original in spirit. Thus *Grhyasutra* may be called ‘Principles for the householder’, and *Sulbasutra* ‘Principles of geometry’. The Sutra literature contains both sacred and secular material. Among these, the *Sulbasutras* are particularly interesting, since they seem to be the earliest examples of mathematical knowledge preserved as part of religious ritual...

The very existence of elaborately planned cities like Harappa, Mohenjo-Daro and others presupposes extensive knowledge of geometry going back well into the third millennium BCE...

The objective needs of architecture demand knowledge of such mathematics. A comparison of the Sulba of Baudhayana,

Apastamba and Katyayana, with the mathematics of Old-Babylonia and Egypt enables us to establish 2000 BCE as the absolute lower limit for the early Sutra literature. Supplementing this with astronomical data from the *Asvalayana Grhyasutra*, the *Sathpatha Brahmana* and other works allow us to push this date back by another thousand years. As a consequence, the traditional date for the Mahabharata War (3102 BCE) also becomes supportable...

Thus the whole idea of Vedic mathematics as a borrowing from Alexandrian Greece vanishes without a trace. It was nothing but a figment of the imagination of nineteenth century romantics who had no notion of the slow and often tortuous process by which science works and evolves...

What was this older common source like? Seidenberg himself supplied the answer:

"It was mathematics very much like what we see in the *Sulbasutras*. In the first place, it was associated with ritual. Second there was no dichotomy between number and magnitude:... In geometry it knew the Theorem of Pythagoras and how to convert a rectangle into a square. It knew the isosceles trapezoid and how to compute its area. It had a facility with whole numbers and knew some number theory centered on the existence of Pythagorean triples. It had a canonical solution for the circulature of the square: and in its attempts to square the circle, it learned to compute a square root." (Seidenberg 1978: p. 329)

This is none other than the *Sulba*; the source, therefore, is the *Sulba* itself, or what Seidenberg calls 'Vedic mathematics'. His most remarkable findings for ancient history, though he himself seemed to have missed their full import were the following:

The arithmetical tendencies here encountered (in the *Sulbas*) were expanded, and in connection with observations on the rectangle led to Babylonian mathematics.

A contrary tendency, namely, a concern for exactness of thought (or the myth of its importance), together with a recognition that arithmetic methods are not exact, led to Pythagorean mathematics. (Seidenberg 1978: p. 329)

The importance of exactness of thought at the highest level of abstraction was recognized also by the Indians as the Upanishads as well as the Sutra works of Panini and Patanjali make evident. To this we should add the notion of proof found in the *Sulbas*, which was also borrowed by the Greeks and brought brilliantly to perfection in the work of Euclid, without a doubt the greatest Greek contribution...

To summarize the argument: *the elements of ancient geometry found in Egypt and Babylonia stem from a ritual system of the kind observed in the Sulbasutras.* (Seidenberg 1962: p 515; emphasis added)

In the words of Datta, the foremost modern student of the *Sulbas*:

"The *Sulbas*, or as they are commonly known at present amongst oriental scholars, the *Sulba-sutras*, are manuals for the construction of altars which are necessary in connexion with the sacrifices of the Vedic Hindus. They are sections of the Kalpa-sutras, more particularly of the Shrauta-sutras, which form one of the six Vedangas (or "Members of the Veda") and deal specially with rituals. Each Shrauta-sutra seems to have had its own *Sulba* section. So there were, very likely, several such works in ancient times. At present we know, however, of only seven *Sulba-sutras*." (Datta 1993: p. 1).

Thus Vedic mathematics or, more exactly, the mathematics of the *Sulbasutras* must have been known in India no later than 2100 BCE... Many of the structures and cities of the Indus Valley presuppose considerable knowledge of geometry nearly a thousand years before Old-Babylonia and the Egyptian Middle Kingdom.



The knowledge of astronomy found in the *Rigveda* is considerably greater than what anyone had previously thought. Hence we must be prepared to grant that their knowledge of mathematics also [was] of no mean order. The two — mathematics and astronomy — always go together.

The distinguishing mark of Vedic mathematics — unlike Babylonian or Egyptian Mathematics — is geometric algebra: problems are stated in geometric form, but their solution often leads to algebraic methods. The two most striking examples of this are the Pythagorean Theorem and the circulature of the square, both of which receive quite extensive coverage in the *Sulbas*. One of the most interesting applications of geometric algebra is Baudhayana's method for constructing spoked wheels. It is an ingenious approach in which we see a remarkable interplay between geometry and algebra. It is an amazing synthesis for the age of the two basic problems — the square on the diagonal (Pythagorean) theorem and the circulature of the square.

The spoked wheel is a commonly occurring metaphor in the *Rigveda*. From this we may conclude that Vedic seers were quite familiar with it. The following examples help illustrate this fact. They are taken from the great hymn I.164, attributed to Dirghatamas. (Translation by Rajaram.)

All worldly beings reside in the revolving five spoked wheel: the axle bearing an immense weight, in motion since time eternal — yet wears not, nor slips the hub.

The wheel with seven fellies, never decaying, rolls on for ever. Yoked to ten horses, bearing all things. The sun progresses in his orb, filled with water for all beings. (I.164.13-14)

Wheel is one, fellies are twelve, and three are the axles, but who knows it? Set in it are three hundred spokes, still and yet moving. (I.164.48)



Determining the propitious times for sacrifices to the Gods who controlled the elements and preserved the life and prosperity of the devotees was a primary task of the Vedic priests. Astronomy from its very beginnings was put to the service of this ritual, making it an indispensable part of the priestly craft. This called for careful observations of the heavens marking the approach of the seasons and predicting the four cardinal points of the year — the two equinoxes, and the summer and the winter solstices. And thus, it would appear, were born both the Vedic calendar and Vedic astronomy.



Without (the) oral tradition, the whole enterprise of Vedic studies would never have seen the light of the day. While great empires of the ancient world have vanished with hardly a trace, this oral tradition has preserved the Vedas as they were chanted thousands of years ago. Far from dismissing it, it seems to us we should be thankful for this monumental effort of preservation. Modern students of the Veda like the young Frenchman Jean Le Mée have seen this:

"Precious stones or durable materials — gold, silver, bronze, marble, onyx or granite — have been used by most ancient people in an attempt to immortalize their achievements. Not so, however, the Aryans. They turned what may seem the most volatile and unsubstantial material of all — the spoken word — and out of this bubble of air fashioned a monument which for more than thirty, perhaps forty centuries later stands untouched by time or the elements... The pyramids have been eroded by the desert wind, the marble broken by earthquakes, and the gold stolen by robbers, while the Veda is recited daily by an unbroken chain of generations, travelling like a great wave through the living substance of mind." (Le Mée 1975: p. ix)

Does the world know of another intellectual effort to compare with this?



We began this discussion with a fairly detailed critical analysis of the linguistic analytical methods evolved by nineteenth century European philologists in their study of ancient Indian literature, history and chronology. Our analysis has shown that not only is their chronology seriously at variance with data, but also their whole methodology is flawed by an absence of rigor and scientific discipline, and a wholesale substitution of subjective opinions for facts. These theories have been little more than hasty conjectures founded upon scanty data, with theories and their interpretations themselves later offered as proof. Their conclusions are also being contradicted by nearly every new finding. Hence it is not only the resulting version of history and chronology that must be rejected, but the whole philological approach that underlies it.

An alternative approach based on a comparative analysis of Vedic mathematics and the mathematics of Old-Babylonia (1700 BCE) and the Egyptian Middle Kingdom (2000 to 1800 BCE) shows that the layer of the (post-Vedic) Sutra literature containing the works of Baudhayana, Asvalayana, Apastamba and Katyayana (and possibly others) must have been in existence well before 2000 BCE. Combining this with astronomical data lends support to the traditional date c. 3100 BCE for the closing of the Vedic Age and the Mahabharata War. The resulting chronological synthesis is summarized in Table 5.

Table 5: Chronological summary for the Vedic Age.

Dates	Events or periods
3800 BCE and earlier	High Vedic Age, the <i>Rigveda</i> .
3800 to 3700 BCE	The closing of the Rigvedic Age with the seventh and the third <i>mandalas</i> . Age of Vasishtha and Visvamitra. The Battle of Ten Kings (c.3730 BCE). The Age of Rama, son of Dasharatha.
c. 3100 BCE	The Mahabharata War. Canonization of the Vedas by Vyasa and his school.
c. 3100 to 2000 BCE	The Sutra-Brahmana period; Yajnavalkya, Baudhayana, Asvalayana, Apastamba and Katyayana. Panini? Yaska?
c.1900 BCE	Final drying up of the Saraswati. End of the Vedic Age.

Perhaps the major departure from the accepted chronology is the identification of the so-called Harappan ruins with the early Brahmana-Sutra period, a finding strongly supported by evidence. We must now consider the possibility of the existence of an earlier layer of civilization prior to the beginning of the ancient world's great civilizations — Egypt, Sumeria, the Saraswati-Indus and China. The *Rigveda* in all probability belongs to this hoary age. Whether the *Rigveda* itself represents the remnants of a still earlier source is a question that we must surely be prepared to ask. It certainly harks back to earlier ages — a frequent refrain in *Rigveda* being: *purvebhih rsibhih nutanaih* — sages ancient and modern...

All these suggest that the *Rigveda* belongs to an earlier layer of civilization that preceded the rise of Egypt, Sumeria and the Indus Valley. Thus the idea of the Tigris-Euphrates Mesopotamian region as the cradle of civilization no longer seems tenable.

The Rigvedic Age must have ended not much later than 3750 BCE, roughly coinciding with the introduction of silver into India. Thus, speaking both literally and figuratively, the Silver Age began with the ending of the Rigvedic Age. The *Rigveda* knows gold, and again, both literally and figuratively it belongs to the Golden Age...

The antecedents of the Indian civilization go back at least to 7000 BCE in the remains that have been found at Mehrgarh and other places. Further, remnants of the Harappan civilization found so far display a level of maturity and sophistication as to leave little doubt that it must have had antecedents that go back to the remotest antiquity. As the course of the Saraswati becomes better charted, it is likely

to reveal that the spread of ancient civilization was from the heartland of the Saraswati-Drishadvati doab into the southwest. This region has been densely populated from the earliest time to the present, for which reason not many traces remain of this primordial civilization...

Vedic civilization was predominantly an indigenous evolution. All the ingredients necessary for human development are right there in this heartland going back to time immemorial. There is no need to bring in any alien invasion to account for one of the major civilizations of world history as was done in the last century by linguists, at a time when anthropology was in its infancy and archaeology was virtually non-existent. It is time to discard this artifice and follow the path of science and primary literature which the Vedic people have left in ample measure...

One of the authors of the present volume (David Frawley) has proposed in his *"Gods, Sages and Kings"* that the *Rigveda* and the Aryan civilization that flourished thousands of years ago constituted such a primordial civilization. And now, thanks to science, this vision is taking concrete shape... this view is receiving support from revisions in the archaeology of prehistoric Europe brought about by what Colin Renfrew calls the 'second radiocarbon revolution'.

The *Rigveda* must then go back to the remotest antiquity, almost to the edge of time when the rivers of North India shook themselves free from the frozen Himalayas towards the end of the last Ice Age. What was this ancient civilization like — this world before the dawn of civilizations? What can we know of the people that made up this civilization? Here we may be on fairly solid ground. Thanks to the brilliant synthesis of the Vedic and Puranic accounts recently effected

by Shrikant Talageri, we probably know who those ancient people were. They were the original Indo-Europeans whose linguistic and spiritual descendants later spread over a vast territory from India and Sri Lanka to England and Ireland...

It may further be noted that this date of c.3700 BCE for the closing of the Rigvedic Age, now independently determined, lends additional support to the traditional date (c. 3100 BCE) for the Mahabharata War. It is useful to be aware of the fact that c. 3800–3700 BCE for the entry of silver, and the closing of the *Rigveda* represents probably a lower limit — i.e., the latest possible date.



(The) scenario — of the loss of perennial Saraswati — is receiving support from the latest satellite data. It is now beginning to be seen that the drying up of the Saraswati was a long drawn out affair affecting the whole region and not just a one-time calamity. To judge from a recent report of Paul-Henri Francfort (1992) based on satellite surveys using images acquired by the French SPOT satellite, the proto-Harappan to the late Harappan period seems to have seen the exploitation of a large number of small scale canals and irrigation works that sustained the population. *There was no great perennial river coursing through this area during this period.* As Francfort very recently observed:

“In fact, we now know, thanks to the fieldwork of the Indo-French expedition, when the proto-historic people settled in this area no large perennial river had flown there for a long time.” (Francfort 1992: p. 91)

The mighty Saraswati that flowed from the “mountain to the sea” must, therefore, belong to an earlier epoch, in fact

a much earlier one. It cannot now be placed much later than the early centuries of the fourth millennium BCE. The same then must be true of the seventh *mandala* of the *Rigveda* (of which Vasishtha is the seer) that describes the Saraswati as flowing from 'the mountains to the sea' (*giribhyah a samudrat*).

The next question is: what happened to this ancient world? — the world that began in Vedic India — with the end of the last Ice Age around 8000 BCE until it ended with the collapse of the Sutra-Harappa civilization c. 2000 BCE. The clearest mark of this is the complete drying up of the Saraswati river...

The Rigvedic period ended not much later than 4000 BCE, to be followed by the other Vedas and the Brahmanas. And just before the end of the millennium, this world was jolted by the shock of the Mahabharata War... (This) war, which according to ancient tradition took place in 3102 BCE, resulted in the virtual annihilation of the ruling families of India at the closing of the Vedic Age. Krishna, the dominant personality of the age, tried desperately to prevent the holocaust but failed. The authorship of the epic *Mahabharata* is traditionally ascribed to Vyasa, who headed a school that compiled the Vedas. This tradition of Vyasa as the author has never been disputed.

It is generally agreed, however, that the epic has not come down to us in the form in which it was originally composed by Vyasa, though there are passages in it that are so archaic in language as to almost touch the Vedas. According to the *Mahabharata* itself, the epic was narrated by Vyasa's pupil Vaisampayana in the court of the Kuru king Janamejaya. This was heard by Ugrasravas who later recited

it before a gathering of Brahmins at the Naimisha forest. All this is according to the *Mahabharata* itself. Thus, even at that early stage, the epic had undergone three recensions.

The date of the War has been disputed with many modern historians preferring c.1400 BCE. This was the result of making it conform to the 1500 BCE date for the mythical Aryan invasion. Once we drop this mythical idea, this artificial barrier is seen to vanish. Judged on the basis of evidence from a wide range of sources, the traditional date is seen to have the strongest support. In particular, the *Mahabharata* describes an urban and maritime society that corresponds to the early Harappan (c.3000 BCE), rather than the post-Harappan following the Great Drought of 2200-1900 BCE. Ecology thus appears to rule out the c.1400 BCE date.

The Sutra period came [after the Rigvedic period], with the rise of the Harappans in India, the Summerian-Akkadian in Mesopotamia and the Old-Empire of Egypt. All three fell victims to the natural calamity that came towards the end of the third millennium.

This picture brings coherence to the scene not only in India but also West Asia. It has been something of a puzzle as to how and why almost all the Harappan sites spread over more than a million square kilometers seem to have met their end more or less simultaneously. The fate of its neighbor to the west — the Akkadian civilization in Mesopotamia — has also been something of a mystery. It was quite small by Harappan, and more generally, Indian standards. Its sudden eclipse, however, has not been easy to explain. Historians in the past have attributed it

to the invasion of nomadic people from the north known as the Amorites.

Such an invasion scenario, however, like the Aryan invasion, tells us more about these historians than history. As the *Encyclopedia Britannica* observes: “[M]odern scholars know as little about the end as the beginning of the Akkadian civilization” (1984, 21: p. 916). We now know what ended it was an ecological catastrophe — the drought that began in 2200 BCE and persisted for three hundred years.

This brings us back to India. What was the Rigvedic Age like, and what gave it that peculiar spirit that went to make it spiritually at least the most creative civilization the world has ever known? The Puranas, and to a lesser extent the Vedas preserve a record of this primordial civilization before the rise of what we incorrectly call the first civilization. We can now examine them for a last look at what they have to say about the origin of the Rigvedic Age. To do this we need to examine the unique ecology of the region in the centuries and the millennia following the end of the last Ice Age. A faint glimmer of it is preserved in the legend of Vrtra.

The last Ice Age began to end — in fits and starts, to be sure — some ten thousand years ago. [When] the accumulated deposits of ice began to be depleted, the great Ghaggar system — the mighty Saraswati — changed its course several times and finally dried up. By the time of the Mahabharata War itself, the river was but a shadow of itself... The civilization then split into its eastern and western sections. Eastern lands like Kuru-Pancala, Kosala, Kashi and eventually Magadha, became the centers of orthodoxy. The western people went on to produce the great works of rational thought — with masterpieces like the *Baudhayana*

Sulbasutra and the linguistic studies that culminated in the work of Panini. All, however, ultimately derived from a single mighty source — the *Rigveda* of the Saraswati heartland.

KALI DATE

The reference date used by Indian calendar makers and chronologists. It corresponds to February 18–19, 3102 BCE. The planetary positions for the day given in ancient works have been verified by modern astronomers using computers. This proves that it represents actual observations and not a ‘back calculation’ as alleged by some modern scholars ignorant of science. (Such back calculations demand knowledge of Newton’s Law of Gravitation and solution of differential equations neither of which existed in ancient times.)

The Kali Date of 3102 BCE is a chronological benchmark of the first importance in ancient Indian history and tradition. Tradition has always associated it with the Mahabharata period — usually with the death of Krishna. While we have not been able to establish this exact identification on the basis of our approach, it can definitely be stated that the Kali Date belongs to the Mahabharata period; the Mahabharata War itself, according to our determination, must be placed c.3100 BCE. Krishna, therefore, belongs to the same era. This has the best scientific support, while dates like 1400 BCE or 950 BCE have none...

The events described in the *Mahabharata* stand at the threshold of the transition from the largely spiritual age of the Vedas and the Brahmanas to the material age of the

Sutras. The really significant point to note is: science now supports the traditional view that the Kali Date is associated with the Mahabharata period — marking this transition. We may, therefore, take this date to be of fundamental historical significance in our study of ancient India. In addition, this has the merit of making coherent much of the traditional history preserved in the Puranas (see for example K.D. Sethna *Ancient India in a New Light*).

Also, archaeologically speaking, the Mahabharata period belongs to the early Harappan era. This saw the beginning of the Sutra period which provided the technological basis for its material achievements as we have already shown. This is supported also by early Sutra authors like Asvalayana who regard the Mahabharata War as ancient. Thus, science and tradition are largely in agreement. Therefore, the Kali Date was, and remains a convenient chronological marker regardless of its exact historical and/or cosmological identity.



These extracts have been taken from the work entitled *Vedic Aryans and the Origins of Civilization: A Literary and Scientific Perspective* by Navaratna S. Rajaram and David Frawley, second revised and enlarged edition published by Voice of India, New Delhi. The first edition was published in 1995 by World Heritage Press, Quebec, Canada. The authors of this work retain copyright over the material quoted here. We gratefully acknowledge permission to use excerpts from their profoundly significant book.

1 Preface to the second edition, p. xiii.

The Feeling of Power

A SHORT STORY BY ISAAC ASIMOV

Every age gives rise to skills which meet the needs of that era and, in their diversity, shape its culture and civilisation. However, the acquisition of skills from one age to another is not a pre-determined linear accumulation. Human beings acquire new skills and internalise them by continuous and frequent use, until a point is reached when the acquired skills become second nature. But these acquired skills can also become lost through subsequent neglect, which may arise from changes in the value human beings attach to a particular skill.

Isaac Asimov demonstrates this vividly in his science fiction stories, which project readers' minds into the future when new technologies would have become 'natural' to human beings. His famous short story, *The Feeling of Power*,¹ illustrates the phenomenon of the loss of acquired skills through their prolonged non-use. We give excerpts from the story below as a metaphor for the tragic neglect of the 'skills' of wisdom and knowledge in the Vedas, concealed by the obscurations of relatively 'modern' scholars and thus denied us over the past centuries. Asimov said: "This story remains ever close to me [because] ... in the story, I talk of 'pocket computers' and deal with the possibility that people will lose their math skills through over-dependence upon them. Of course, everyone knows of the one and thinks of the other now, but this story was written in 1957!"

"Aub! How much is nine times seven?"

Aub hesitated a moment. His pale eyes glimmered with a feeble anxiety. "Sixty-three," he said.

Congressman Brant lifted his eyebrows. "Is that right?"

"Check it for yourself, Congressman."

The congressman took out his pocket computer, nudged the milled edges twice, looked at its face as it lay there in the palm of his hand, and put it back. He said, "Is this the gift you brought us here to demonstrate? An illusionist?"

"More than that, sir. Aub has memorized a few operations and with them he computes on paper."

"A paper computer?" said the general. He looked pained.

"No, sir", said Shuman patiently. "Not a paper computer. Simply a sheet of paper. General, would you be so kind as to suggest a number?"

"Seventeen," said the general.

"And you, Congressman?"

"Twenty-three."

"Good! Aub, multiply those numbers and please show the gentlemen your manner of doing it."

"Yes, Programmer," said Aub, ducking his head. He fished a small pad out of one shirt pocket and an artist's hairline stylus out of the other. His forehead corrugated as he made painstaking marks on the paper.

General Weider interrupted him sharply. "Let's see that."

Aub passed him the paper, and Weider said, "Well, it looks like the figure seventeen."

Congressman Brant nodded and said, "So it does, but I suppose anyone can copy figures off a computer. I think I could make a passable seventeen myself, even without practice."

"If you will let Aub continue, gentlemen," said Shuman without heat. Aub continued, his hand trembling a little. Finally he said in a low voice, "The answer is three hundred and ninety-one."

Congressman Brant took out his computer a second time and flicked it. "By Godfrey, so it is. How did he guess?"

"No guess, Congressman," said Shuman. "He computed that result. He did it on this sheet of paper."

"Humbug", said the general impatiently. "A computer is one thing and marks on paper are another."

[Aub is then required to explain how he obtained his result.]

There was an instant's silence and then General Weider said, "I don't believe it. He goes through this rigmarole and makes up numbers and multiplies and adds them this way and that, but I don't believe it. It's too complicated to be anything but hornswoggling."

"Oh no, sir," said Aub in a sweat. "It only *seems* complicated because you're not used to it. Actually, the rules are quite simple and will work for any numbers."

"Any numbers, eh?" said the general. "Come then." He took out his own computer (a severely styled GI model) and struck it at random. "Make a five seven three eight on the paper. That's five thousand seven hundred and thirty-eight."

"Yes, sir," said Aub, taking a new sheet of paper.

"Now," (more punching of his computer), "seven two three nine. Seven thousand two hundred and thirty-nine And now multiply those two."

"It will take some time," quavered Aub.

"Take the time," said the general.

"Go ahead, Aub," said Shuman crisply.

Aub set to work, bending low. He took another sheet

of paper and another. The general took out his watch finally and stared at it. "Are you through with your magic-making, Technician?"

"I'm almost done, sir. Here it is, sir. Forty-one million, five hundred and thirty-seven thousand, three hundred and eighty-two." He showed the scrawled figures of the result.

General Weider smiled bitterly. He pushed the multiplication contact on his computer and let the numbers whirl to a halt. And then he stared and said in a surprised squeak, "Great Galaxy, the fella's right!"

The President of the Terrestrial Federation had grown haggard in office and, in private, he allowed a look of settled melancholy to appear on his sensitive features. The Denebian war, after its early start of vast movement and great popularity, had trickled down into a sordid matter of maneuver and countermaneuver, with discontent rising steadily on Earth. Possibly, it was rising on Deneb, too.

And now Congressman Brant, head of the important Committee on Military Appropriations was cheerfully and smoothly spending his half hour appointment spouting nonsense.

"Computing without a computer," said the president impatiently, "is a contradiction in terms."

"Computing," said the congressman, "is only a system for handling data. A machine might do it, or the human brain might. Let me give you an example." And, using the new skills he had learned, he worked out sums and products until the president, despite himself, grew interested.

"Does this always work?"

"Every time, Mr. President. It is foolproof."

"Is it hard to learn?"

"It took me a week to get the real hang of it. I think you would do better."

"Well," said the president, considering, "it's an interesting parlor game, but what is the use of it?"

"What is the use of a new born baby, Mr. President? At the moment there is no use, but don't you see that this points the way toward liberation from the machine. Consider, Mr. President," the congressman rose and his deep voice automatically took on some of the cadences he used in public debate, "that the Denebian war is a war of computer against computer. Their computers forge an impenetrable shield of counter-missiles against our missiles, and ours forge one against theirs. If we advance the efficiency of our computers, so do they theirs, and for five years a precarious and profitless balance has existed.

"Now we have in our hands a method for going beyond the computer, leapfrogging it, passing through it. We will combine the mechanics of computation with human thought; we will have the equivalent of intelligent computers; billions of them. I can't predict what the consequences will be in detail but they will be incalculable. And if Deneb beats us to the punch, they may be unimaginably catastrophic."

The president said, troubled, "What would you have me do?"

"Put the power of the administration behind the establishment of a secret project on human computation. Call it Project Number, if you like. I can vouch for my committee, but I will need the administration behind me."

"But how far can human computation go?"

"There is no limit. According to Programmer Shuman,

who first introduced me to this discovery..."

"I've heard of Shuman, of course."

"Yes. Well, Dr. Shuman tells me that in theory there is nothing the computer can do that the human mind cannot do. The computer merely takes a finite amount of data and performs a finite number of operations upon them. The human mind can duplicate the process."



Nine times seven, thought Shuman with deep satisfaction, is sixty three, and I don't need a computer to tell me so. The computer is in my own head.

And it was amazing the feeling of power that gave him.

1 *The Best Science Fiction of Isaac Asimov, as chosen by the SF Grandmaster Himself*, Grafton Books, 1988.

GLOSSARY OF TERMS

(ALPHABETIC)

ABHIDHA	literal significance of a word; denotation.
ABHINIVESHA	attachment; grasping or clinging; determination; concentration.
ABHU	the one who sees, the seer.
ABHWA	see chapter "Definitions, Concepts and Metaphors".
ACHARYA	see chapter "Definitions, Concepts and Metaphors".
ADESHA	instruction; command; injunction.
ADHAH	down; downward; below; half.
ADHIBHOOTA	material; the world of matter.
ADHIDAIVATA	supraphysical; the world of supraphysical energies.
ADHYATMA	physical.
ADHYATMA SANSTHA	physical 'entity'; physical 'arrangement'.
ADI	creation.
ADITI	the sun.
ADITYA	son of <i>Aditi</i> ; the sun.
AGADA TANTRA	toxicology.
AGAMA	see chapter "Definitions, Concepts and Metaphors".
AGATI	inward movement; inflow.
AGNI	fire.
AGNI CHAYAN YAJNYA/	
AGNI YAJNYA	see chapter "Yajnya: Meaning and Significance".
AGNIHOTRA	the ceremony consisting of offering oblations to fire.
AGNIKONA	the south-east quarter.
AHAM	ego; 'I am'; 'Self'.

AHAMKARA	the concept of 'I'; the individualised ego-consciousness.
AHAVANIYA	offerings to supraphysical energies are generally made in the third fire in the east called <i>Ahavaniya</i> . (The word <i>Havana</i> , the ceremony of offering or oblation to fire, is derived from this.)
AHUTI	offering to fire.
AITEREYA	the name of a sage and seer-scientist who gave us the <i>Aitereya Brahmana</i> of the <i>Rig Veda</i> . The <i>Aitereya Upanishad</i> forms part of this <i>Brahmana</i> . Of the 21 recensions (<i>Shakhas</i>) of the <i>Rig Veda</i> , there is only one extant. It is called <i>Sakal Shakha</i> , or the <i>Aitereya Shakha</i> , because the <i>Aitereya Upanishad</i> occurs in it.
AJNANA	absence of awareness; lack of knowledge.
AKANKSA	aspiration; expectation. Three main factors have been pointed out as unifying sentence meaning: expectancy (<i>Akanksa</i>), consistency (<i>Yogyata</i>), and contiguity (<i>Asatti</i>). Unity of meaning explained in this way can have an extended application, even to ordinary sentences.
AKASHA	space. See chapter "Definitions, Concepts and Metaphors".
AKSHARA	imperishable; unalterable.
ALABDHABHUMIKATVA	lack of initiative; not attaining a stage of concentration of mind.
ALASYA	sloth or indolence.
AMBHA	water (in the supraphysical state).
AMBHOVAD	doctrine of water (in the supraphysical state).
AMITI/ASHANAYA	see chapter "Yajnya: Meaning and Significance".

AMRITA	immortal; imperishable. In the technical sense, this term is used for the unchanging principle in an individual, as distinguished from the ever-changing principles/factors described as <i>Mrita</i> .
AMRITATVA	quality of <i>Amrita</i> in an object/individual.
ANANDA	see chapter "Definitions, Concepts and Metaphors".
ANATMA	that which is not <i>Atma</i> (technical elaboration in the chapter "Jeeva, Ishwara and Parmeshwara").
ANAVASTHITATVA	quality of lack of stability; unsettled condition or character.
ANIRUKTA	not articulated; not explained (because of being self-evident).
ANNA	generally this means food or grain; in the technical sense, it denotes that which is consumed.
ANNADA	that which consumes <i>Anna</i> .
ANTA	dissolution.
ANTARIKSHA	atmosphere; the intermediate space between the earth and the sun.
ANU	atom.
ANUDATTA	lowered syllable; not raised, not elevated; having a neutral, general tone, neither high nor low.
ANUMANA	see chapter "Definitions, Concepts and Metaphors".
ANUSVARA	nasal sound which is marked above the line, and which always belongs to the preceding vowel.
ANUVYUHA	explained in the chapter "Jeeva, Ishwara and Parmeshwara".
APA	water. The technical meaning is explained in the chapter "Yajnya:

	Meaning and Significance".
APANA	to breathe out. One of the five <i>Pranas</i> , <i>Apana</i> travels downwards and exits via the anus.
APARA	that which is beyond. Its technical meaning is briefly defined in the chapter "Beginning the Journey".
ARANYAKA	every <i>Veda</i> has two parts: <i>Vidhi</i> or <i>Mantra</i> , and <i>Brahmana</i> . <i>Aranyaka</i> is a portion of <i>Brahmana</i> .
ARKA	a ray; a flash of lightning; field of light.
ARTHA	substance; wealth; money; meaning; sense of.
ARTHAIKATVA	unity of purpose — a concept used in the philosophy of grammar.
ARTHASHASTRA	science of economics.
ASADWAD	one of the 10 doctrines of the seer-scientists expounding the intrinsic traits of all that is created. <i>Asadwad</i> elaborates on the ever-changing aspect of existence. See chapter "Methods of Analysis".
ASANA	specific bodily postures of yogic exercises.
ASATA	non-existence; non-reality; as a technical term, it denotes the ever-changing aspects of existence.
ASATTI	contiguity — one of the three main factors which unify a sentence and give it a connected meaning.
ASHAYA	accumulation of the vehicles of affliction (<i>Kleshas</i>).
ASHITI	the substance within the field of light (<i>Arka</i>). See chapter "The Universe: Inside and Outside".
ASHWANI KUMAR	generally identified as the father of the founder of <i>Ayurveda</i> . In Vedic usage there are two <i>Ashwani Kumars</i> among the 33 <i>Devatas</i> . See chapter "Yajnya: Meaning and Significance".

ASURA	generally translated as demons or opponents of the gods; a class of supraphysical energy.
ATHARVA	one of the four <i>Vedas</i> .
ATMA	explained in the chapters "Beginning the Journey", "Who is the 'I'?" and "Jeeva, Ishwara and Parmeshwara".
ATMEEYA	one's own; the technical meaning is explained in the chapter "Yajnya: Meaning and Significance".
ATMENDRA	a particular form of <i>Indra</i> related to <i>Atma</i> .
ATREYA	a descendent of <i>Atri</i> , one of the seven celebrated seer-scientists.
AUCHITYA	fitness; suitability; justification.
AUM/OM	see chapter "Definitions, Concepts and Metaphors".
AVACHI	south.
AVAYAVA	a limb, member part or portion.
AVIDYA	ignorance; that which veils the natural potential of Self-realisation.
AVIRATI	non-cessation; desire of the mind, the essence of which is contact or proximity with sense objects.
AVYAKTA	unmanifest; invisible. (Also known as <i>Akshara Purusha</i> .)
AYAN	the sun's road north and south of the equator; the half-year; the equinoctial and solstitial points.
AYAN SATRA	a <i>Yajnya</i> which is completed in 1000 days and nights.
AYU	age; life; living; a living being.
AYURVEDA	the science of health and medicine.
BALA	the first formation in the process of creation when <i>Rasa</i> , the vast

	limitless stillness, is stirred.
BALSHESHWARA	a stage in the limitless flow of time.
BALSHESHWARA PRAJAPATI	the supraphysical energy regulating <i>Balsheshwara</i> .
BARKALI	the name of a seer-scientist.
BASTEE	the bladder; lower belly; abdomen; an injection syringe made of bladder or the injection itself; medicinal enemata.
BHAGAVAD GEETA	see chapter "The <i>Vedas</i> : A Prologue".
BHAKTI	distribution; separation; share; devotion; fondness.
BHAKTI YOGA	the path of devotion and love for the fundamental principle of creation, leading to Self-realisation and emancipation — one of the three paths of <i>Yoga</i> .
BHARTRAHARI	a central figure in the philosophical development of Sanskrit grammar, and the Author of <i>Vakyapadiya</i> , a seminal work on grammar and grammatical philosophy.
BHASHYA	an explanatory work; exposition; explanation; commentary.
BHAUTIK AGNI	fire in its material state, as distinct from fire in the physical or supraphysical sense.
BHAVAKATVA	a special function of poetic language which helps in the universalisation of depicted emotions and assists the concentration of the readers.
BHID	see chapter "Language and the Seer- Scientists of the <i>Vedas</i> ".
BHOJAKATVA	in literature, this is the power of making the listener share the poetic emotions.
BHOOHA	also pronounced as <i>Bhu</i> , meaning 'earth'. The first of the seven <i>Vyahritis</i> , a term

	which signifies various levels and depths of utterances.
BHOOT	the supraphysical energy of a body which occupies a certain area.
BHOOTA	matter; material substances; the past as distinct from <i>Bhavah</i> (the present) and <i>Bhavishyat</i> (the future) (also spelt <i>Bhuta</i>).
BHRANTIDARSHANA	erratic perception; wrong understanding; erroneous knowledge.
BHUTA VIDYA	science and knowledge of the material state; psychiatry.
BHUTADI	matter and related objects; a type of <i>Ahamkara</i> (ego-consciousness).
BHUVAH	the second of the seven <i>Vyahritis</i> which are deeply meaningful utterances signifying seven 'worlds': <i>Bhu</i> , <i>Bhuvah</i> , <i>Swah</i> , <i>Maha</i> , <i>Janah</i> , <i>Tapah</i> and <i>Satya</i> .
BID	see chapter "Language and the Seer-Scientists of the <i>Vedas</i> ".
BINDU	see chapter "Language and the Seer-Scientists of the <i>Vedas</i> ".
BRAHMA	the foundation or basis of the totality of the created universe. This universe is another manifestation of <i>Brahma</i> .
BRAHMA DIVAS	one day of <i>Brahma</i> (as distinct from a day of human beings). See chapter "The Space-Time Continuum".
BRAHMA KALPA	a unit to measure the immeasurable span of time. See chapter "The Space-Time Continuum".
BRAHMANA	see chapter "Definitions, Concepts and Metaphors".
BRAHMANDA	egg-shaped universe.
BRHAD	lofty; tall; high; great; wide (also spelt <i>Brihat</i>).

BRIHATI	a metre of 36 syllables.
BRIHATI WAK	normal human speech, one of the four categories of the 10th <i>Indra</i> . See the chapter "Indra and Vishnu: Two Warring 'Gods'".
BUDDHI	intellect; the power of forming and retaining concepts and general notions; intelligence. For its technical definition, see chapter "Who is the 'I'?".
CHANDOGA	singer in metre.
CHANDRAMA	moon.
CHATUR VYUHA	having four arrays; four kinds of appearances.
CHATURMAS	a period of four months.
CHATURYUGA	a period of four <i>Yugas</i> — <i>Satya Yuga</i> , <i>Treta Yuga</i> , <i>Dwapara Yuga</i> and <i>Kali Yuga</i> .
CHHANDA	metre.
CHHANDAS	plural of <i>Chhanda</i> ; the Vedic auxiliary science of metre in language.
CHITTA	the thinking principle; the seat of intellectual functions; mind viewed as the seat or organ; the aggregate of cognitive, volitional and emotional activities and processes of the individual.
CHITTA VRITTI NIRODHA	the definition of <i>Yoga</i> by Patanjali, translated as 'the restraint of the processes of <i>Chitta</i> ' (see above entry).
DARSHANA	seeing; looking; observing; perception; doctrines or philosophical systems.
DARSHAPOORNAMAS	one of the four smaller <i>Yajnyas</i> relating to the refinement of a fortnight or a month.

DASHAH/AHEEN	<i>Soma Yajnya</i> completed in 10 days and nights.
DESHA	space. See chapter "The Space-Time Continuum".
DEVA	supraphysical energy, generally translated as 'heavenly' and 'divine' things.
DEVA AGNI	the supraphysical energy called <i>Agni</i> .
DEVATA	the same as <i>Deva</i> ; the supraphysical energy emanating from the sun.
DEVAVAD	knowledge of the science of supraphysical energies.
DEVI	supraphysical energy perceived in female form.
DHANURVEDA	knowledge of the science of archery.
DHANWANTARI	the most celebrated physician, the teacher of the science of medicine who "brought nectar from the churning of the oceans" (a famous metaphor in the ancient Indian classics). <i>Ayurveda</i> , the ancient science of life and longevity, is attributed to him.
DHARANA	concentration of mind; keeping (in remembrance); retention; holding.
DHARMA	see chapter "Definitions, Concepts and Metaphors".
DHARMASHASTRA	texts of <i>Dharma</i> .
DHATU	layer; stratum; ingredient; matter (generally used for metals); radical ((language).
DHISHYAGNI	the <i>Agni</i> of <i>Antariksha</i> (the intermediate region) which resides on earth in eight forms.
DHWANI	sound; echo; tone; tune.
DHYANA	an act of attention directed to some particular object; meditation.
DIGBANDHA	ritual of suspension of space. See chapter

	"The Space-Time Continuum".
DIK	the directions of north, south, east, west, etc.
DISH	direction, quarter or region pointed at. See chapter "The Space-Time Continuum". (Also spelt <i>Disha</i> .)
DIVYA YUGA	the period related to the Partial Collapse (one year in the human time-scale is one day-night unit in the Divya time-scale). See chapter "The Space-Time Continuum"
DOSHA	humour of the body; ailment; fault; deficiency.
DRASHTA	seer; observer.
DRAVYA	substance; thing or object.
DWAPARA	the third of the four <i>Yugas</i> . <i>Satya Yuga</i> and <i>Treta Yuga</i> precede <i>Dwapara Yuga</i> , and <i>Kali Yuga</i> — the present age — follows.
DWESHA	aversion; animosity; enmity; rancour.
DYAU	the region beyond the sun.
DYAU LOK	the region beyond the sun which is one of the several worlds.
EKAH	alone; single; singular.
ESHANA	impulse; ardent desire.
GANDHA	smell; odour; scent; perfume.
GANDHARVA	a class of people; a species different from human beings, generally regarded as celestial musicians or heavenly singers.
GANDHARVA VEDA	one of the 18 branches of fundamental knowledge, considered as the science of music.
GANESH	see chapter "Definitions, Concepts and Metaphors".
GARHPATYA	one of the three sacred fires in the house. It

	belongs to the master of the household and must be kept burning in the <i>Garhpatya</i> mound, which is circular in shape. No offerings (oblations) are made directly into this fire.
GATI	motion; speed; outward flow (from centre towards circumference).
GATI INDRA	<i>Indra</i> , the supraphysical energy of motion.
GAU	generally translated as 'cow'; in the technical sense, it is the rays emanating from the sun.
GAUNI	one of the seven sophisticated concepts developed to facilitate the communication of what a word seeks to convey.
GAYATRI	the name of a popular and powerful mantra. Literally translated, it means "that which protects whoever chants it" (<i>Gayantam trayate ysmat Gayatri tyabhidhiyate</i>). According to <i>Manusmriti</i> , each <i>Pada</i> (quartet) of <i>Gayatri</i> is taken from one of the <i>Vedas</i> . <i>Gayatri</i> contains all the spirit and energy of the Vedic <i>Mantras</i> .
GAYATRI PRANA	the supraphysical energy bearing the name <i>Gayatri</i> .
GHANA	one of the ways of reciting the <i>Veda Mantras</i> ; any compact mass or substance.
GHANAPATHA	reciting the <i>Veda Mantras</i> according to <i>Ghana</i> .
GHANAPATHIN	one who recites <i>Ghana</i> .
GHATIKA	also called <i>Ghatikasthana</i> , these are Vedic schools or universities which flourished in India in ancient times; a unit of time.
GHORA	a special type of <i>Agni</i> . See chapter "Yajnya: Meaning and Significance".
GUNA	constituent process. See chapter "Definitions, Concepts and Metaphors"

GURU	see chapter "Definitions, Concepts and Metaphors".
HATHA YOGA	a form of <i>Yoga</i> , it is described as the stairway for those who wish to attain the lofty <i>Raja Yoga</i> , codified and explained by the seer-scientist Patanjali in his <i>Yoga Sutras</i> . <i>Hatha Yoga</i> covers restraint, postures, control of the breath, control of senses, concentration, meditation and Self-realisation.
HAVANA	offering made in fire.
HETU	cause.
HIRANYGARBHA	a golden foetus; the seed of elemental existence from which creation followed; a name of <i>Brahma</i> .
HUTA	one to whom offerings are made.
ICHHA	desire; impulse; longing.
INDRA	the name of a supraphysical energy.
INDRA MAHAH	<i>Indra</i> which causes vitality and exuberance.
INDRAVARAJ	brother of <i>Indra</i> .
INDRIYA	organs, which are of two categories: the sense organs and the motor organs.
ISHANA	north-east quarter.
ISHWARA	see chapters "Jeeva, Ishwara and Parmeshwara", "Who is the 'I'?" and "The Universe: Inside and Outside".
ITIHAS	historical episodes illustrating and explaining the supraphysical forces and their functioning.
JAGAT	see chapter "Definitions, Concepts and Metaphors".
JAGRATA	the state of being awake (as distinct

	from dreaming and deep sleep); the conscious mind.
JALA	water.
JANAH	one of the seven <i>Vyahritis</i> ; the world beyond <i>Maharloka</i> .
JAPA	to repeat and recite in a low voice (applicable to the recitation of <i>Mantras</i> or names of divine significance).
JATA	a shorter expression of <i>Jatapatha</i> , a special method of chanting <i>Veda Mantras</i> . In <i>Jata</i> or <i>Jatapatha</i> , the first word of the <i>Mantra</i> is chanted with the second, then the order is reversed — the second is chanted with the first. Then, again, the first word is chanted with the second, then the second with the third, the third with the second and, again, the second with the third, and so on.
JATI	species; universal attribute.
JEEVA	see chapters "Jeeva, Ishwara and Parmeshwara" and "The Universe: Inside and Outside".
JNANA	consciousness; knowledge; awareness. For its technical definition see the chapter "Definitions, Concepts and Metaphors".
JNANA INDRIYA	sense organs (eyes, ears, tongue, skin and nose).
JNANA YOGA	Yoga based on the path of knowledge.
JYOTI INDRA	supraphysical energy related to light.
JYOTISHA	astrology; astronomy.
KALA	time; relationship between diseases and the time factor; diseases caused by the ageing factor; daily and seasonal routines; death. See chapter "The Space-Time Continuum"
KALI YUGA	the fourth of the four <i>Yugas</i> , the current

	age in which we are living.
KALPA	a measure of time; a specified period; There are 30 <i>Kalpas</i> in a <i>Brahma</i> month. In the spiral of time-scales at the level of <i>Balsheshwara Prajapati</i> , every 'month' has 30 <i>Kalpas</i> . Another meaning of <i>Kalpa</i> is the Vedic auxiliary science dealing with the practical applications, rites and rituals of everyday life.
KAMA	longing; desire (generally used for the urge for sexual gratification).
KAPHA DOSHA	one of the three humours of the body according to <i>Ayurveda</i> (the other two being <i>Vata</i> and <i>Pitta</i>).
KARANA	cause; the good and bad properties of medicines; regulations for their use.
KARMA	action; work; therapeutics. See chapter "Definitions, Concepts and Metaphors".
KARMA INDRIYA	the five motor-organs or organs of action (hand, foot, larynx, organ of generation and organ of excretion).
KARMA YOGA	<i>Yoga</i> based on the path of action. See chapter "Harnessing our Untapped Potential".
KARTA	one who takes action; regulations and ethics governing Ayurvedic physicians.
KARYA	whatever is done by <i>Karta</i> (the do-er); maintenance of health.
KAUMARABHRITYA	paediatrics.
KAURAVAS	a royal dynasty named after King Kuru.
KAYACHIKITSA	treatment of the internal organs (eg. treatment of psychosomatic ailments).
KENA	the name of an <i>Upanishad</i> — the <i>Kena Upanishad</i> (also written as <i>Kenopanishad</i>).
KLESHA	affliction. There are five <i>Kleshas</i> —

	ignorance (<i>Avidya</i>), false consciousness of existence or individuality (<i>Asmita</i>), passion (<i>Raga</i>), aversion (<i>Dwesha</i>) and attachment to existence or individuality (<i>Abhinivesha</i>).
KOSHA	sheath. See chapter "The Universe: Inside and Outside".
KRAMA	sequence.
KRISHNA PAKSHA	the 'dark fortnight', when the moon is on the wane.
KRIYA	act of doing; activity.
KSHANA	one of the smallest units of time; a moment.
KUMBHAKA	a breathing exercise consisting of temporarily halting the breath: this is done by shutting the mouth and closing the nostrils with the fingers of the right hand; a disease of the eyes.
LAKH	100,000.
LAKSHANA	the secondary meaning or secondary significative power of a word.
LINGA	a mark; spot; sign; token; emblem; characteristic; the sign of gender or sex. (In Sanskrit, the grammatical gender does not coincide with sex, and words referring to the same object may occur in different genders. The <i>Linganusahasana</i> (determination of gender) rules dictate how to determine the gender of linguistic items, based on their structure and meaning.)
LOKA	the world; a field of experience. See chapter "Yajnya: Meaning and Significance".
LOMGARTA	a tiny hole as minute as the width of a hair; a tiny unit of time much smaller than a moment.

MADHYAMA	sustenance.
MADHYAMA (VAK)	between the two levels of speech (<i>Vaikharee</i> and <i>Pashyanti</i>) there is a middle or <i>Madhyama Vak</i> —the level of thought. Its association is chiefly with the mind or intellect (<i>Buddhi</i>). See chapter "Definitions, Concepts and Metaphors" for a more detailed explanation.
MAHABHARATA	the largest epic in the world, authored by Veda Vyasa, divided into 18 books and containing more than 220,000 lines. Each book is called a <i>Parva</i> . A mine of information, the <i>Mahabharata</i> throws light on different aspects of life and culture. There is little agreement regarding the date of its composition; the latest research suggests that it could be as old as 6000 BC.
MAHABHOOTA	see chapter "Definitions, Concepts and Metaphors".
MAHADEVA	another name for <i>Shiva</i> , one of the three supraphysical forces — <i>Brahma</i> the creator, <i>Vishnu</i> the sustainer and <i>Shiva</i> the destroyer. The term literally means the 'great one' or the 'great god'.
MAHAH	one of the seven <i>Vyahritis</i> . See chapter "Yajnya : Meaning and Significance".
MAHAPRALAYA	the great submergence (of all of creation in the eternal pool of supraphysical energy from which it had evolved and emerged). For its technical meaning see chapter "The Space-Time Continuum".
MAHAT	intellect; the 'great one'. See chapter "Methods of Analysis".
MAHESHWARA	the great <i>Ishwara</i> , a stage in limitless, formless Time as it acquires shape and form

	and begins to lend itself to enumeration in units of day, night, month, year, etc.
MAHIMA	effulgence; grandeur — in the form of supraphysical energy emanating from the centre of an individual (ie. anything which has an identity and individuality).
MALA	waste products of the body.
MANA	translated as 'mind' or 'heart'. For a technical explanation, see chapters "Beginning the Journey" and "Who is the 'I'?".
MANAVA YUGA	a <i>Yuga</i> in terms of years lived by human beings (as distinct from <i>Brahma</i> years).
MANTRA	a verse in the <i>Vedas</i> ; the words in which the seer-scientists articulated their discoveries of the processes of nature, the cosmos and beyond. See chapter "Definitions, Concepts and Metaphors".
MANUSHYA	a human being.
MANUSHYA PRANA	a supraphysical energy associated with human beings.
MANWANTARA	a unit of time; the 14th part of a day of <i>Brahma</i> .
MAR	death.
MAREECHI	a particle of light; a shining mote or speck in the air. For its technical meaning see chapter "Inside the Supraphysical Universe".
MARTYA	mortal; changeable.
MATRA	a measure of any kind; quantity; size; duration; number; degree; the duration of time required to pronounce a short vowel.
MAYA	an extraordinary power which emanates from the Infinite and makes possible the interplay of finite things. See the chapter "Yajnya: Meaning and Significance".

MEEMAMSA	profound thought or reflection; one of the three divisions of Hindu philosophy, itself divided into two systems: <i>Poorva Meemamsa</i> by Jaimini and <i>Uttara Meemamsa</i> by Badarayana. These are commonly styled as <i>Vedanta</i> .
MOKSHA	emancipation; liberation; release.
MOORCHITA	that which is bereft of consciousness.
MOORTI	solid body; material form.
MRITYU	death. For its technical meaning see chapter "Yajnya: Meaning and Significance".
MRITYUTWA	the characteristic of changeability, of death.
MUHURTA	a moment; an instant.
NABHI	navel; centre.
NABHYA	sprung from the navel or centre; umbilical.
NADI	vein or artery.
NAIRATA	south-west.
NAMA	name.
NASYA	nasal (administration of a treatment via the nose).
NIRODHA	restraint of mental processes.
NIRUKTA	this term is related to the linguistic analysis of words to derive their correct meaning within the context. <i>Nirukta</i> emphasises the derivation of difficult and apparently unanalysable terms. It is the auxiliary science of etymology in the <i>Vedas</i> .
NITI/NIRITI	a specific class of <i>Agni</i> , related to <i>Prithwi</i> (the earth).
NITYA PRALAYA	routine collapse; the event when a stage of human existence has spent its entire lifespan and is subsumed by, or collapses into a higher level of the time-space continuum spiral.

NIYAMA	regular practice of some carefully developed postures in Yoga.
NYAYA	one of the six <i>Darshanas</i> , a system of ancient Indian philosophy propounded by seer-scientist <i>Gautama</i> .
OKAH SARI	a specific classification of <i>Indra</i> .
OM (AUM)	see chapter "Definitions, Concepts and Metaphors".
PACHANA	digestive therapy.
PADA	a method of chanting the <i>Veda Mantras</i> .
PADARTHA	category.
PANCIHIKARANA	see chapter "Definitions, Concepts and Metaphors".
PANDAVAS	progeny of King Pandu.
PAPA	negative tendency; 'sin'.
PARA	higher knowledge of the universe (as distinct from <i>Apara</i> which is viewed as 'lower' knowledge). It should not be confused with superior or inferior knowledge. These words deal with knowledge of two levels in the universe.
PARA VAK	a level of language higher than <i>Pashyanti</i> which occurs at the level of direct intuition and, therefore, must finally be understood through experience.
PARALOKA	the world other than this where we are at present.
PARAMANU	the smallest atom.
PARATPARA	the highest level of <i>Prajapati</i> , without the attributes of time, age or boundary.
PARAVANI	the region of pure, unmanifest sound. See chapter "Definitions, Concepts and Metaphors"

PARMATMA	the supreme <i>Atma</i> . See the chapter "Jeeva, Ishwara and Parmeshwara". (Also spelt <i>Paramatma</i> .)
PARMESHTHI	one of the five facets of <i>Balsheshwara</i> , the creator of the universe.
PARMESHWARA	the supreme <i>Ishwara</i> . See chapter "Jeeva, Ishwara and Parmeshwara".
PARMESHWARI	pure consciousness; pure intelligence; transcendental supraphysical energy.
PASHUBANDH	one of the four smaller <i>Yajnyas</i> , performed in an <i>Ayan</i> (six-month period).
PASHYANTI (VAK)	the inner idea, or <i>Sphota</i> , is aptly designated as <i>Pashyanti Vac</i> , which is the intuitive flash of understanding of a sentence, book or poem as a whole. <i>Pashyanti</i> is the direct experience of the <i>Vakya-Sphota</i> , of meaning as a numenal whole. See chapter "Definitions, Concepts and Metaphors" for a more detailed explanation.
PAWAKA	one of the four types of <i>Agni</i> , specifically that found in air (<i>Wayu</i>).
PAWAMANA	one of the four types of <i>Agni</i> , specifically that found in water (<i>Jala</i>).
PITARA	translated as 'ancestors' or 'forefathers'. Technically it stands for one of the several unchangeable supraphysical energies. (Also written as <i>Pitar</i> .)
PITTA DOSHA	one of the three <i>Doshas</i> (energetic forces) in human physiology, according to <i>Ayurveda</i> . <i>Pitta Dosha</i> is caused by fire and water.
PIYUSHA	an aggregate of 15 <i>Manwantaras</i> , each <i>Manwantara</i> being an aggregate of 100 <i>Yugas</i> .
POORAKA	a breathing exercise: closing the right

	nostril with the forefinger and drawing up air through the left, then closing the left nostril and drawing up air through the right.
POORVA KARMA	in <i>Ayurveda</i> , this is technical term for pre-operative therapeutics.
POORVA MEEMAMSA	one of the six systems of ancient Indian philosophy, of which the other five are <i>Yoga</i> , <i>Vedanta</i> or <i>Uttara Meemamsa</i> , <i>Samkhya</i> , <i>Nyaya</i> and <i>Vaisheshika</i> . (Also written as <i>Purvameemamsa</i> .)
PRACHI	east.
PRADHANA	fundamental <i>Prakriti</i> . For a technical definition, see the chapter "Methods of Analysis".
PRAJA	something that is created.
PRAJAPATI	creator. For the technical definition see the chapter "Prajapati: The First Individual".
PRAJNA PRANA	a supraphysical energy which underlies the faculty of cognisance or intellect.
PRAJNAN(A) MANA	also expressed as <i>Prajnana Manas</i> , <i>Prajna Atma</i> , <i>Prajnya</i> or <i>Prajnan</i> , this <i>Atma</i> is formed by the interface of <i>Indra</i> and <i>Mana</i> , and manifests in the form of intellect or the faculty of cognisance and discernment.
PRAJNYA	insight; state of deep sleep.
PRAJNYATMA	the combination of <i>Prajnya</i> and <i>Atma</i> , a state of <i>Atma</i> manifested as consciousness. <i>Prajnya</i> is akin to consciousness in the state of deep sleep when, unlike in the waking state or in dreams, effects such as the variegated plurality of the universe have not yet arisen.
PRAKARANA	subject matter under discussion.
PRAKRITI	matter. See chapters "Language and the

	Seer-Scientists of the <i>Vedas</i> " and "Definitions, Concepts and Metaphors".
PRALAYA	collapse into a higher entity; the submergence of all created entities in the source (of energy) from which they evolved.
PRAMADA	apathy; negligence; sloth. During this state the mental control is relaxed and the mind seems abandoned to itself, subjected to the disordered and spontaneous flux of ideas, sensations and emotions. What takes place is akin to drowsiness, fatigue and intoxication.
PRANA	supraphysical energy/breath. For a more detailed explanation see the chapter "Beginning the Journey".
PRANA MANDALA	the field of <i>Prana</i> .
PRANAVA	the proper noun for the symbol <i>Om/Aum</i> . See chapter "Harnessing Our Untapped Potential".
PRANAYAMA	control (<i>Yama</i>) of the breath and life-energy (<i>Prana</i>); to pause for a short while after each inbreath and outbreath. If by <i>Yama</i> and <i>Niyama</i> the mind has been cleared of disturbances, and by <i>Asana</i> the body has developed a feeling of stability, clarity and well-being, then this pause of breath is effortless and deep. Special mental endowment or genius is a quality of <i>Pranayama</i> . By controlling the breath, our intelligence flourishes.
PRANEE	a living being with <i>Prana</i> ; one who is breathing.
PRATIBHA	to shine upon; to come in sight; a flash (upon thoughts); splendour; an image; intelligence.
PRATICHI	west.

PRATISHAKHYA	each of the <i>Vedas</i> has attached to it a <i>Pratishakhya</i> which examines Vedic sounds. These rules, with ancient commentaries on them, are included in the study of <i>Shiksha</i> . They pertain to changes in the way different recensions of the <i>Vedas</i> are recited. For example, the <i>Madhyandini</i> recension of the <i>Yajur Veda</i> says that <i>Ja</i> may be used in place of <i>Ya</i> , and <i>Ka</i> in place of <i>Sa</i> . The rules of <i>Pratishakhya</i> do not apply to one area alone, but to all those parts where the Vedic recension concerned is followed.
PRATISANCHAR VIDYA	the science of dissolution. (Also called <i>Pratisarga</i> .)
PRATISARGA	see above entry.
PRATISHTHA BRAHMA	the fundamental factor from which an entity grows.
PRATYAHARA	abstraction in the sense of the withdrawal of the senses from external objects.
PRATYAYA	elucidation; that which gives many meanings to a word; qualifying suffix.
PRITHWI	the earth.
PUNDIT	scholar; a learned person; a wise person (also written as <i>Pandit</i>).
PUNYAH KALA	15 <i>Manwantaras</i> constitute one day in the lifespan of the sun, and this is known as <i>Punyah Kala</i> or <i>Piyusha</i> Time.
PURANAS	ancient legend; old history (there are 18 ancient <i>Puranas</i>).
PURUSARTHA	self-effort.
PURUSHA	see chapters "Methods of Analysis" and "Definitions, Concepts and Metaphors".

RAGA	a musical note; harmony; melody; attachment.
RAHASYA	secret; mystery.
RAJA	king.
RAJA YOGA	king among <i>Yogas</i> . See chapter "Definitions, Concepts and Metaphors".
RAJAS	one of the three basic attributes of human nature. See chapter "Definitions, Concepts and Metaphors".
RAJOVRITTI	same as above.
RAKTA MOKSHANA	blood-letting.
RASA	juice; fluid; vast, limitless stillness; the best, finest or prime part of anything; essence; marrow; taste.
RASAYANA	rejuvenation; a particular drug used as a vermifuge; a channel for the fluids of the body.
RATHANTARA SAMA	The <i>Sama</i> circle formed with the distance from the centre of the earth to the sun as radius.
RATRI SATRA	the <i>Yajnya</i> which is completed in 100 days and nights.
RAYI	matter; a lump of earth; wealth; property; materials.
RECHAKA	one of the three breathing exercises, expelling the breath out of one nostril.
RIG	one of the four <i>Vedas</i> .
RIK	see chapter "Yajnya: Meaning and Significance".
RISHI	see chapter "Definitions, Concepts and Metaphors".
RISHI PRANA	see chapter "Beginning the Journey".
RITAM	pure, absolute, eternal truth.

RITU	season.
ROOKSHATA	dryness.
ROOPA	form; shape; outline.
ROOPA INDRA	the supraphysical energy from which a form evolves and which sustains it.
RUDRA	also called <i>Rudradevata</i> , this supraphysical energy maintains a special relationship with <i>Soma</i> and <i>Yama</i> .
RUPA	sight; vision.
SADASATA	mutability and immutability; the dialectics of change and permanence in the same individual.
SADHANA	a dedicated effort which leads straight to the goal. In the context of spiritual practice, the term is used for earnest, dedicated, patient and persistent pursuit of spiritual goals.
SAHA	a specific type of <i>Bala</i> , generated when one <i>Soma</i> clashes with another and the latter retaliates so that they crush or rub up against each other.
SAKSHI	witness. (Also spelt <i>Sakshee</i> .)
SAMA	the point on which the entire existence of an entity is poised.
SAMA VEDA	one of the four <i>Vedas</i> , also referred to as <i>Sama</i> .
SAMADHI	intense and prolonged concentration of the mind, leading to total absorption in the Self.
SAMAKHYA	etymological meaning.
SAMAYA	time (in the state when it acquires form).
SAM-DESHA	message.
SAMHITA	the <i>Mantra</i> portion of the <i>Vedas</i> .
SAMKALPA	declaration of purpose; expression of determination to perform (a specific act).
SAMKHYA	a school of ancient Indian philosophy. See

	chapter "Definitions, Concepts and Metaphors".
SAMSHAYA	indecision; doubt.
SAMSKARA	see entry for <i>Sanskara</i> .
SAMVATSARA PRAJAPATI	the personification of the supraphysical energy underpinning a year (also referred to as <i>Samvatsara</i>).
SAMYAMA	regulation or self-control of the senses.
SANATANA DHARMA	see chapter "Definitions, Concepts and Metaphors".
SANCHAR VIDYA	understanding the process of <i>Atma</i> becoming the universe, ie. the science of creation. (Also known as <i>Sarga</i> .)
SANDHI	an euphonic combination.
SANKALPA	another spelling for <i>Samkalpa</i> .
SANKHYA	enumeration; number.
SANSKARA	subliminal impression (also written as <i>Samskara</i>).
SANSKRIT	the language of ancient India.
SANSTHA	physical structure; physical organisation.
SAPTARISHI	seven <i>Rishis</i> ; seven stars of a constellation.
SARGA	the same as <i>Sanchar Vidya</i> .
SARVA	one of three <i>Prajapatis</i> , its powers emanate from the centre of an entity.
SARVAJNYA	the force behind all exertion and change in the universe. Also known as <i>Antaryami</i> .
SARVESHWARA	the regulator or controller of everything, ie. pure consciousness.
SATA	enduring; unchanging; stable.
SATTVA	illumination; enlightening knowledge; lightness (also spelt <i>Satwa</i>). See chapter "Definitions, Concepts and Metaphors".
SATYA	truth; eternal; unchanging.

SATYA INDRA	a special category of supraphysical energy.
SATYA YUGA	the first of the four <i>Yugas</i> .
SATYAM	one of the seven <i>Vyahritis</i> .
SAUR PRALAYA	solar collapse.
SHABDA	sound; word. (Also written as <i>Sabda</i> , with a diacritical mark on the 's'.)
SHABDA BRAHMAN	sound or word as the fundamental source of creation.
SHACHI	<i>Indra's</i> wife (representing the power of dynamism).
SHAKHA	branch; recension.
SHAKTI	the supraphysical power and energy that governs the world; the power of <i>Shiva</i> ; in grammar it is used to indicate the significative power of words.
SHALAKYA TANTRA	the branch of <i>Ayurveda</i> related to diseases of the ear, nose and throat and their treatment.
SHALYA TANTRA	surgery.
SHAREER	the body (also written as <i>Sharir</i>).
SHASTRA	(literal meaning) an edict or a commandment; used for the 14 branches of learning called the 'abodes of learning'; also used for the <i>Veda Shastra</i> .
SHIKSHA	the first among the six limbs of <i>Veda</i> , the science which deals with the character of Vedic syllables and determines their true nature; phonetics as applied to the <i>Vedas</i> (also written as <i>Shiksa</i>).
SHISHYA	disciple; student.
SHIVA	another name for <i>Prajnya</i> , the supraphysical energy of peace and well-being.
SHRADDHA	faith; trust; conviction. Devoid of all doubt

	and accompanied by a sentiment of mental calmness, <i>Shraddha</i> is necessary to enter the path of <i>Yoga</i> and to maintain oneself on it.
SHRAMA	physical effort; labour.
SHRUTI	another term for the <i>Vedas</i> (literally meaning that which has been transmitted orally and heard by a disciple of the <i>Guru</i>); a direct statement (grammatical).
SHUCHI	one of the four types of <i>Agni</i> , related to the sun.
SHUKLA PAKSHA	the 'bright fortnight', when the moon is waxing.
SHUNYA	symbol for zero.
SIDDHI	an accomplishment attained through the practice of <i>Yoga</i> .
SIKHAPATHA	a special form of reciting <i>Veda Mantras</i> .
SKANDHA	stem or trunk of a tree; a collection of several <i>Paramanus</i> (atoms).
SMRITI	traditions and directions that accord with, and flow from the <i>Vedas</i> ; memory.
SNEHA	property of greasiness.
SNEHANA	an Ayurvedic term for oleation therapy, involving the application of oil to the body.
SOMA	the material cause of the universe; a specific category of supraphysical energy.
SOOKTA	a <i>Veda Mantra</i> ; a wise saying.
SOORYA	the sun.
SPARSHA	touch.
SPHOTA	the sentence taken as an integral symbol.
SRI TRIPURA RAHASYA	an ancient work concerning the forces of creation (<i>Brahma</i>), sustenance (<i>Vishnu</i>) and dissolution (<i>Mahadeva</i>).
SRISHTI	creation; the cosmos.
SRUTI	the <i>Vedas</i> ; a direct statement (grammatical).

STHANA	one of the six factors to prove the meaning of a word.
STHIRA	stable; steady.
STUTI	songs of the glory of the supraphysical forces.
STYANA	debility; apathy.
SUKHA	happiness; comfort.
SUKTA	a <i>Veda Mantra</i> ; a wise saying.
SUSHUPTI	state of sleep.
SUTRA	thread; an 'aphorism' containing essential truths expounded by the seer-scientists.
SUTRATMA	that which causes the place of <i>Atma</i> in the body to remain undisturbed.
SVARA	tonal variation; vowel.
SVARITA	falling syllable.
SWA INDRA	the supraphysical energy which resides in a vacuum (also called <i>Shun Indra</i>).
SWAH	one of the seven <i>Lokas</i> (worlds); one of the seven <i>Vyahritis</i> .
SWAKRIT	that which is created on its own; self-created.
SWAPNA	dream; subconscious mind.
SWARGA	often translated as 'heaven', in the <i>Vedas</i> this term is used to denote the sphere of the sun.
SWAYAMBHU	that which comes into being on its own. It is the name of the <i>Yajnya</i> which occurs at the very outset, in the entire process of creation. (See also the chapter "The Space-Time Continuum", in which it is pointed out that <i>Balsheshwara</i> , creator of <i>Upeshwara</i> , has five facets: the earth, sun, moon, <i>Parmeshthi</i> and <i>Swayambhu</i> .)
SWAYAMBHU YAJNYA	at the very outset, before anything else occurs in the entire process of creation, there is <i>Swayambhu Yajnya</i> . (Also called <i>Parmeshthi</i> .)
SWEDANA	fomentation therapy.

SWETAVARAHA KALPA

	the first day of the <i>Brahma</i> month; a unit of time.
TAIJAS	one of the three types of <i>Prana</i> which <i>Jeeva</i> possesses. The other two are <i>Vaishwanara</i> and <i>Prajnya</i> ; one type of <i>Ahamkara</i> (ego-consciousness).
TAIJASA	the dream state.
TAMAS	one of three basic attributes, the trait of inertia. See chapter "Definitions, Concepts and Metaphors".
TANMATRA	see chapter "Definitions, Concepts and Metaphors".
TAPAH	one of the <i>Vyahritis</i> . (Also written as <i>Tapa</i>).
TAPAS	conscious and dedicated self-control.
TATPARYA	meaning; purport.
TATTERIYA	the name of the seer-scientist after whom the <i>Tatteriya Upanishad</i> is named.
TATTWA	essence; the fundamental factor from which something evolves. (Also written as <i>Tatwa</i>).
TEJA	the sun; light; fire; extremely subtle, upward-moving, expansive <i>Prana</i> .
TITHI	date.
TRETA	the second of the four <i>Yugas</i> .
TRICHAM SAMAH	three times the length of a <i>Sama</i> .
TRIDOSHAS	the Ayurvedic term for the three humours of the body.
TRISARENU	an aggregate of 30 atoms.
TUREEYA	all beings normally exist in one of the three states of waking, dreaming or deep sleep. <i>Tureeya</i> is the fourth state, beyond these three. The experience of the plurality of this universe only disappears when one reaches this state. See chapter "Definitions, Concepts and Metaphors".

UDATTA	raised syllable.
UDICHI	north.
UKTHA	centre.
UPACHARA	'metaphor' in grammar; 'treatment' in <i>Ayurveda</i> .
UPA-DESA	advice; exhortation; guidance.
UPANISHAD	the last part of a <i>Veda</i> (also written as <i>Upanisat</i>).
UPASANA	an important method of stabilising the mind; literally, 'the act of sitting near'. See chapter "The Universe: Inside and Outside" for a more detailed explanation.
UPAVEDA	limb of the <i>Vedas</i> .
UPENDRA	a specific category of <i>Indra</i> .
UPESHWARA PRAJAPATI	a specific time unit of a very large measure; the fourth facet of <i>Prajapati</i> .
URDHVA	upwards.
URKA	a cold 'juice', which augments strength and is rapidly transformed into <i>Prana</i> .
UTTARA MEEMAMSA	see the entry under <i>Meemamsa</i> .
VAC	see chapter "Definitions, Concepts and Metaphors".
VAIDIK AGNI	the <i>Agni</i> which is related to the <i>Vedas</i> .
VAIDYA	practitioner of <i>Ayurveda</i> (a doctor practising the Indian system of health care).
VAIKHAREE (VAC)	the outer speaking of words and sentences. These are the uttered sounds which combine to make up the sentence, book or poem. See chapter "Definitions, Concepts and Metaphors" for a more detailed explanation.
VAIKARIKA	one of the three types of <i>Ahamkara</i> (the concept of 'I', the individualised ego-consciousness). The other two types are

	<i>Taijas</i> and <i>Bhutadi</i> . See chapter "Methods of Analysis".
VAIRAGYA	detachment; dispassion.
VAISHESHIKA	one of the six <i>Darshanas</i> or ancient systems of Indian philosophy (also spelt <i>Vaisesika</i>).
VAISHWANARA	the name of <i>Atma</i> at the level of <i>Jeeva</i> .
VAIVASWAT MANWANTARA	a time unit; the seventh <i>Manwantara</i> .
VAJIKARANA	aphrodisiacs.
VAK	innumerable 'points' which go to form a day; the basic unit or fundamental <i>Tattwa</i> of time; language.
VAK SAHASRI VIDYA	the branch of Vedic knowledge dealing with the science of <i>Vak</i> (see above entry).
VAKYA	syntactic connection.
VAKYA SPHOTA	the meaning as a numenal whole. At this level there is no distinction between the word and the meaning.
VAMANA	the use of emetics for expelling toxins from the body.
VARNA	four sections in which society was organised in ancient India; letter or phoneme.
VARTIKA	elucidation of a commentary.
VASANA	deeply entrenched impulses.
VASTU	substance.
VASU	a supraphysical energy.
VASUDEVATA	a supraphysical energy which maintains a special relationship with <i>Agni</i> .
VATA DOSHA	space and air combine to form this, the most important of the three <i>Doshas</i> .
VAYAVYA	north-west.
VAYONADHA	the circumference of an object which encases the substance within.

VAYU	one of the principal <i>Atmas</i> discernible in the body; a product of the space between the earth and the sun.
VEDA	see chapter "Definitions, Concepts and Metaphors".
VEDA MANTRA(S)	see chapter "Definitions, Concepts and Metaphors".
VEDANTA	last portion of the <i>Vedas</i> .
VICHARA	faculty of discrimination between right and wrong; deliberation about causes and consequences; judgement.
VID	to know; knowledge; existence.
VIDHI	a section of the <i>Mantra</i> part of the <i>Vedas</i> .
VIDHIVINISCHAYA	pharmacy and pharmacology.
VIDYA	knowledge; the science of a specific area.
VIDYUT INDRA	a special class of supraphysical energy.
VIJNANA	see chapter "Definitions, Concepts and Metaphors".
VIKALPA	see chapter "Definitions, Concepts and Metaphors".
VIKARA	changes and modifications.
VIKRITI	the secondary meaning (grammatical); distortion.
VIKSHEPANA	power of dynamism.
VIPAKA	consequences of the vehicles of affliction (<i>Kleshas</i>).
VIRAT	the <i>Prana</i> which sustains the universe and replenishes the diminution that occurs in accordance with the laws of nature.
VIRECHANA	the use of purgatives.
VIRUDDHAM	antagonist; perverted knowledge.
VISHESH	special.
VISHNU	a supraphysical energy. See chapter "Vishnu and His One Thousand Names".
VISWA	the waking state. (Also spelt <i>Vishwa</i> .)

VISHWA	the universe.
VISHWESHWARA	regulator or master of the universe.
VITTA	property. For its technical meaning see chapter "Yajnya: Meaning and Significance".
VIVARTA	a state, position, phase or aspect of an infinite, continuing, unbroken, indivisible entity.
VIVASWANA	the sun (having a special connotation, for details of which see chapter "Yajnya: Meaning and Significance").
VIVEKA	'intellective revelation', the result of the internalisation of the power of <i>Vichara</i> .
VIVIDHAM	variegated.
VRITTI	an activity, function or act of the mind; food; the effects of good and bad food; a balanced diet.
VRITTI ANUMANA	the process by which the mind constructs an inference or reaches a conclusion.
VYADHI	disease; imbalance of the humours, the constituent fluids and the sense organs.
VYAHRITI	seven supraphysical stages; seven 'worlds'.
VYAKARANA	a manner of linguistic analysis which determines the exact form of words; the science of grammar in the <i>Vedas</i> .
VYAKRIT	one of the three functional names of <i>Prajapati</i> . See chapter "Prajapati: The First Individual".
VYANJANA	one of several ways to find out what a word seeks to convey; allusion; figurative expression; indicative meaning.
VYUHA	one of the innumerable variations in which <i>Atma</i> is arranged; three of these have particular importance, namely <i>Jeeva</i> , <i>Ishwara</i> and <i>Parmeshwara</i> .

WAK	the substance in an object; the matter within the shell. See chapter "Beginning the Journey".
WAYU	air.
YAJAMAN YAJNYA	person who is performing <i>Yajnya</i> . process of the acculturation of <i>Agni</i> ; refinement and embellishment of <i>Agni</i> . See chapter "Yajnya: Meaning and Significance".
YAJU	one of the four <i>Vedas</i> .
YAJURVEDA	the facet of motion.
YAMA	generally understood as the 'God of death'; for its technical meaning in <i>Veda</i> see chapter "Yajnya: Meaning and Significance".
YASKA	author of <i>Nirukta</i> , the most renowned glossary on the Vedic texts. It has been suggested that he was the descendent of Yaska, a teacher of Rishi Bharadwaj.
YOGA	a discipline. A classical form of yoga is set forth in the <i>Yoga Sutras</i> of Patanjali. It consists of seven stages of discipline, beginning with the performance of righteous acts, going on to breath control and the resultant control of the mind (and concurrent control of the body), and culminating in a state called <i>Samadhi</i> , which is divided into a lower and a higher state. The lower type is the mystic's trance and the higher is liberation itself — the difference being that once one gains the higher state, one never loses it. An adept of such a method is known as a <i>Yogi</i> , and such beings are generally credited with

YOGI
YOGYATA

exceptional powers of concentration and control.

an accomplished practitioner of *Yoga*.
the logical compatibility of the consistency
of words in a sentence for mutual
association. See chapter "Word and
Meaning: The Importance of Grammar in
the Study of the *Vedas*".

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ABOUT THE AUTHOR

The author of this work, Rishi Kumar Mishra, was 'discovered' by his Guru, the outstanding scholar Pandit Motilal Shastri. Unlike the normal practice of a student seeking out a learned teacher, in this case the teacher located the student, shook him internally, elevated him above the world in which he was immersed, gave him insights into the 'lost' meaning of the messages hidden in the age-old texts, and taught him how to decipher the profound implications of the *Veda Mantras*, the eternal verses.

This was indeed remarkable because, having gained some acquaintance with ancient Indian scriptures from his father (who was a Sanskrit scholar and religious practitioner), the author had completely discarded that world as 'obscurantist' and was gripped by 'modern' ideas and philosophies, including atheism and Marxism. Here was a case of the Guru, the teacher, turning everything upside down. Having sown the seeds of a powerful cosmic view, he asked the disciple to go back into the world in which he was immersed, to internalise what he had learned and then communicate it to the world. This was the most difficult task. It was a challenge to continue the process of learning, testing, verifying and deepening the knowledge without withdrawing from the demanding responsibilities and challenges of normal existence. This book is a result of over thirty 30 years of that rigorous process.

During this long period, the author worked as a journalist and rose to become the Editor-in-Chief of India's only left-wing daily, *The Patriot*, and the weekly news-magazine 'Link'. He also experienced the complexities of life and society as a trade unionist and social activist. He was elected as a Member of the Indian Parliament (Upper House) from 1974 to 1980, when he watched closely the functioning of the world's largest democracy. He worked closely alongside the late prime ministers (Mrs.) Indira Gandhi and Rajiv Gandhi. In 1990, he became Chairman and Editor-in-Chief of the Observer Group of Newspapers, which includes a prominent financial daily, *The Observer of Business and Politics*, published simultaneously from Mumbai and Delhi.

The author has travelled widely, both as a parliamentarian and as a journalist. He has visited France, Greece, U.K., USA, Germany, Russia, Egypt, Algeria, Tanzania, Zambia, Angola, Vietnam, Kampuchea, Lebanon, Pakistan, Italy, Switzerland, Cuba, Portugal, Poland, Thailand, China, among other countries. During these visits, he has met with presidents, prime ministers, ministers, academics, intellectuals and other leading public figures.

Throughout this time, when he was apparently immersed in politics and journalism, he continued his internal pilgrimage of self-discovery, a journey completely hidden from his interlocutors in the world of politics, media and public affairs. He continued to live in a tantalising 'external' world while internally being occupied with his 'real' assignment.

Like his Guru, the author belongs to the lineage of Rishi Bharadwaj, the renowned seer-scientist, who unravelled several mysteries of the cosmos many thousands of years ago and is extensively cited in the *Vedas*.

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The second work of Rishi Kumar Mishra, 'The Fusion of Awareness, Action and Intelligence: Shrimad Bhagwad Geeta – the Forgotten Message', is a fitting companion to this book, because the Geeta is the key to a true understanding of the Vedas and their auxiliary branches.

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